

MC160n

Maintenance Manual

[Rev. 2]

Related drawings

| Drawing No. | Name |
|-------------|------------------------------------|
| 44292401TL | MC160n Disassembly for Maintenance |
| 44292401TR | MC160n RSPL |

| BOM | | Use for | | Certification Body | |
|--------------------|------------|----------|--------------------|--------------------------------------|--------------|
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Document Revision History

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| | | | | | |

PREFACE

This manual provides an overview of method for maintaining the MC160n.

This manual is intended for maintenance staff. For more information about how to operate the MC160n, please refer to User 's manual.

- Note!**
- Manual may be revised and updated at any time without notice.
 - Unexpected mistakes may exist in the manual.
OKI will not assume any responsibility whatsoever for damage to the equipment repaired/adjusted/changed by the user etc with this manual.
 - The parts used for this printer may be damaged when handling inappropriately. We strongly recommend maintaining this machine by our registration maintenance staff.
 - Please operate the machine after removing static electricity.

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SAFETY AND IMPORTANT WARNING ITEMS

Read carefully the Safety and Important Warning Items described below to understand them before doing service work.

IMPORTANT NOTICE

Because of possible hazards to an inexperienced person servicing this product as well as the risk of damage to the product, Okidata Corporation (hereafter called the ODC) strongly recommends that all servicing be performed only by ODC-trained service technicians.

Changes may have been made to this product to improve its performance after this Service Manual was printed. Accordingly, ODC does not warrant, either explicitly or implicitly, that the information contained in this Service Manual is complete and accurate.

The user of this Service Manual must assume all risks of personal injury and/or damage to the product while servicing the product for which this Service Manual is intended.

Therefore, this Service Manual must be carefully read before doing service work both in the course of technical training and even after that, for performing maintenance and control of the product properly.

Keep this Service Manual also for future service.

DESCRIPTION ITEMS FOR DANGER, WARNING AND CAUTION

In this Service Manual, each of three expressions "⚠ **DANGER**", "⚠ **WARNING**", and "⚠ **CAUTION**" is defined as follows together with a symbol mark to be used in a limited meaning.

When servicing the product, the relevant works (disassembling, reassembling, adjustment, repair, maintenance, etc.) need to be conducted with utmost care.

- ⚠ **DANGER:** Action having a high possibility of suffering death or serious injury
- ⚠ **WARNING:** Action having a possibility of suffering death or serious injury
- ⚠ **CAUTION:** Action having a possibility of suffering a slight wound, medium trouble and property damage

Symbols used for safety and important warning items are defined as follows:

| | | | |
|--|--------------------------|---------------------------------|-------------------------|
| ⚠ :Precaution when using the copier. | ⚠ General precaution | ⚠ Electric hazard | ⚠ High temperature |
| ⊘ :Prohibition when using the copier. | ⊘ General prohibition | ⊘ Do not touch with wet hand | ⊘ Do not disassemble |
| ● :Direction when using the copier. | ● General instruction | ⏏ Unplug | ⏏ Ground/Earth |

SAFETY WARNINGS

[1] MODIFICATIONS NOT AUTHORIZED BY OKI DATA CORPORATION

Okidata brand products are renowned for their high reliability. This reliability is achieved through high-quality design and a solid service network.

Product design is a highly complicated and delicate process where numerous mechanical, physical, and electrical aspects have to be taken into consideration, with the aim of arriving at proper tolerances and safety factors. For this reason, unauthorized modifications involve a high risk of degradation in performance and safety. Such modifications are therefore strictly prohibited. The points listed below are not exhaustive, but they illustrate the reasoning behind this policy.

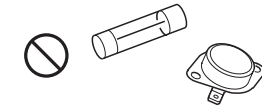
Prohibited Actions

⚠ DANGER

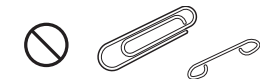
- Using any cables or power cord not specified by ODC.



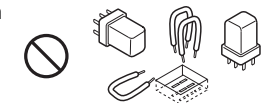
- Using any fuse or thermostat not specified by ODC. Safety will not be assured, leading to a risk of fire and injury.



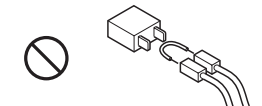
- Disabling fuse functions or bridging fuse terminals with wire, metal clips, solder or similar object.



- Disabling relay functions (such as wedging paper between relay contacts)



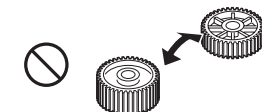
- Disabling safety functions (interlocks, safety circuits, etc.) Safety will not be assured, leading to a risk of fire and injury.



- Making any modification to the product unless instructed by ODC



- Using parts not specified by ODC



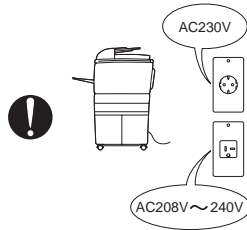
[2] POWER PLUG SELECTION

In some countries or areas, the power plug provided with the product may not fit wall outlet used in the area. In that case, it is obligation of customer engineer (hereafter called the CE) to attach appropriate power plug or power cord set in order to connect the product to the supply.

Power Cord Set or Power Plug

! WARNING

- Use power supply cord set which meets the following criteria:
 - provided with a plug having configuration intended for the connection to wall outlet appropriate for the product's rated voltage and current, and
 - the plug has pin/terminal(s) for grounding, and
 - provided with three-conductor cable having enough current capacity, and
 - the cord set meets regulatory requirements for the area.
 Use of inadequate cord set leads to fire or electric shock.
- Attach power plug which meets the following criteria:
 - having configuration intended for the connection to wall outlet appropriate for the product's rated voltage and current, and
 - the plug has pin/terminal(s) for grounding, and
 - meets regulatory requirements for the area.
 Use of inadequate cord set leads to the product connecting to inadequate power supply (voltage, current capacity, grounding), and may result in fire or electric shock.
- Conductors in the power cable must be connected to terminals of the plug according to the following order:
 - Black or Brown: L (line)
 - White or Light Blue: N (neutral)
 - Green/Yellow: PE (earth)
 Wrong connection may cancel safeguards within the product, and results in fire or electric shock.



[3] CHECKPOINTS WHEN PERFORMING ON-SITE SERVICE

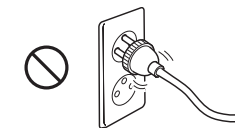
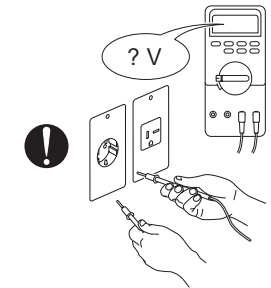
Okidata brand products are extensively tested before shipping, to ensure that all applicable safety standards are met, in order to protect the customer and CE from the risk of injury. However, in daily use, any electrical equipment may be subject to parts wear and eventual failure. In order to maintain safety and reliability, the CE must perform regular safety checks.

1. Power Supply

Connection to Power Supply

! WARNING

- Check that mains voltage is as specified.
Connection to wrong voltage supply may result in fire or electric shock.
- Connect power plug directly into wall outlet having same configuration as the plug.
Use of an adapter leads to the product connecting to inadequate power supply (voltage, current capacity, grounding), and may result in fire or electric shock.
If proper wall outlet is not available, advise the customer to contact qualified electrician for the installation.
- Plug the power cord into the dedicated wall outlet with a capacity greater than the maximum power consumption.
If excessive current flows in the wall outlet, fire may result.
- If two or more power cords can be plugged into the wall outlet, the total load must not exceed the rating of the wall outlet.
If excessive current flows in the wall outlet, fire may result.
- Make sure the power cord is plugged in the wall outlet securely.
Contact problems may lead to increased resistance, overheating, and the risk of fire.



Connection to Power Supply

! WARNING

- Check whether the product is grounded properly.
If current leakage occurs in an ungrounded product, you may suffer electric shock while operating the product.
Connect power plug to grounded wall outlet.



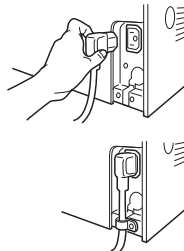
Power Plug and Cord

! WARNING

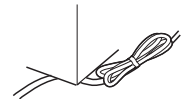
- When using the power cord set (inlet type) that came with this product, make sure the connector is securely inserted in the inlet of the product.

When securing measure is provided, secure the cord with the fixture properly.

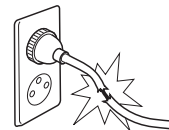
If the power cord (inlet type) is not connected to the product securely, a contact problem may lead to increased resistance, overheating, and risk of fire.



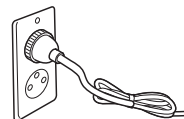
- Check whether the power cord is not stepped on or pinched by a table and so on.
Overheating may occur there, leading to a risk of fire.



- Check whether the power cord is damaged. Check whether the sheath is damaged.
If the power plug, cord, or sheath is damaged, replace with a new power cord or cord set (with plug and connector on each end) specified by ODC.
Using the damaged power cord may result in fire or electric shock.



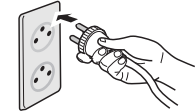
- Do not bundle or tie the power cord.
Overheating may occur there, leading to a risk of fire.



Power Plug and Cord

! WARNING

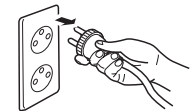
- Check whether dust is collected around the power plug and wall outlet.
Using the power plug and wall outlet without removing dust may result in fire.



- Do not insert the power plug into the wall outlet with a wet hand.
The risk of electric shock exists.



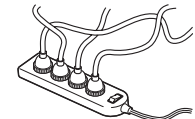
- When unplugging the power cord, grasp the plug, not the cable.
The cable may be broken, leading to a risk of fire and electric shock.



Wiring

! WARNING

- Never use multi-plug adapters to plug multiple power cords in the same outlet.
If used, the risk of fire exists.



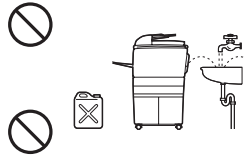
- When an extension cord is required, use a specified one.
Current that can flow in the extension cord is limited, so using a too long extension cord may result in fire.
Do not use an extension cable reel with the cable taken up. Fire may result.



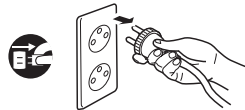
2. Installation Requirements

Prohibited Installation Places**⚠ WARNING**

- Do not place the product near flammable materials or volatile materials that may catch fire.
A risk of fire exists.
- Do not place the product in a place exposed to water such as rain.
A risk of fire and electric shock exists.

**When not Using the Product for a long time****⚠ WARNING**

- When the product is not used over an extended period of time (holidays, etc.), switch it off and unplug the power cord.
Dust collected around the power plug and outlet may cause fire.

**Ventilation****⚠ CAUTION**

- The product generates ozone gas during operation, but it will not be harmful to the human body.
If a bad smell of ozone is present in the following cases, ventilate the room.
 - When the product is used in a poorly ventilated room
 - When taking a lot of copies
 - When using multiple products at the same time

**Fixing****⚠ CAUTION**

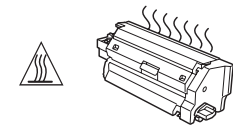
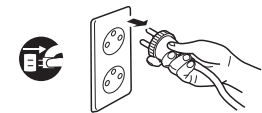
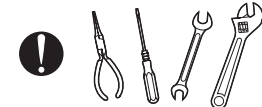
- Be sure to lock the caster stoppers.
In the case of an earthquake and so on, the product may slide, leading to an injury.



3. Servicing

Inspection before Servicing**⚠ CAUTION**

- Before conducting an inspection, read all relevant documentation (service manual, technical notices, etc.) and proceed with the inspection following the prescribed procedure in safety clothes, using only the prescribed tools. Do not make any adjustment not described in the documentation.
If the prescribed procedure or tool is not used, the product may break and a risk of injury or fire exists.
- Before conducting an inspection, be sure to disconnect the power plugs from the product and options.
When the power plug is inserted in the wall outlet, some units are still powered even if the POWER switch is turned OFF. A risk of electric shock exists.
- The area around the fixing unit is hot.
You may get burnt.




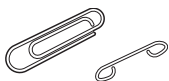






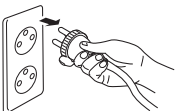
**Work Performed with the Product Powered On****⚠ WARNING**

- Take every care when making adjustments or performing an operation check with the product powered.
If you make adjustments or perform an operation check with the external cover detached, you may touch live or high-voltage parts or you may be caught in moving gears or the timing belt, leading to a risk of injury.
- Take every care when servicing with the external cover detached.
High-voltage exists around the drum unit. A risk of electric shock exists.






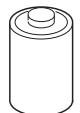

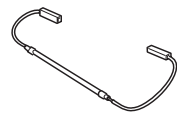

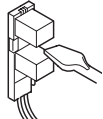




Safety Checkpoints

WARNING

- When taking a report of problems from a user, check each part and repair properly.
A risk of product trouble, injury, and fire exists. 
- Check the exterior and frame for edges, burrs, and other damages.
The user or CE may be injured. 
- Do not allow any metal parts such as clips, staples, and screws to fall into the product.
They can short internal circuits and cause electric shock or fire.  
- Check wiring for squeezing and any other damage.
Current can leak, leading to a risk of electric shock or fire. 
- Carefully remove all toner remnants and dust from electrical parts and electrode units such as a charging corona unit.
Current can leak, leading to a risk of product trouble or fire. 
- Check high-voltage cables and sheaths for any damage.
Current can leak, leading to a risk of electric shock or fire.  
- Check electrode units such as a charging corona unit for deterioration and sign of leakage.
Current can leak, leading to a risk of trouble or fire. 
- Before disassembling or adjusting the write unit (P/H unit) incorporating a laser, make sure that the power cord has been disconnected.
The laser light can enter your eye, leading to a risk of loss of eyesight.  

Safety Checkpoints

WARNING

- Do not remove the cover of the write unit. Do not supply power with the write unit shifted from the specified mounting position.
The laser light can enter your eye, leading to a risk of loss of eyesight.  
- When replacing a lithium battery, replace it with a new lithium battery specified in the Parts Guide Manual. Dispose of the used lithium battery using the method specified by local authority.
Improper replacement can cause explosion.  
- After replacing a part to which AC voltage is applied (e.g., optical lamp and fixing lamp), be sure to check the installation state.
A risk of fire exists.  
- Check the interlock switch and actuator for loosening and check whether the interlock functions properly.
If the interlock does not function, you may receive an electric shock or be injured when you insert your hand in the product (e.g., for clearing paper jam).  
- Make sure the wiring cannot come into contact with sharp edges, burrs, or other pointed parts.
Current can leak, leading to a risk of electric shock or fire.  
- Make sure that all screws, components, wiring, connectors, etc. that were removed for safety check and maintenance have been reinstalled in the original location. (Pay special attention to forgotten connectors, pinched cables, forgotten screws, etc.)
A risk of product trouble, electric shock, and fire exists.   × pcs?

Handling of Consumables

! WARNING

- Toner and developer are not harmful substances, but care must be taken not to breathe excessive amounts or let the substances come into contact with eyes, etc. It may be stimulative.

If the substances get in the eye, rinse with plenty of water immediately. When symptoms are noticeable, consult a physician.



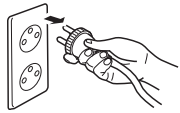
- Never throw the used cartridge and toner into fire. You may be burned due to dust explosion.



Handling of Service Materials

! CAUTION

- Unplug the power cord from the wall outlet. Isopropyl alcohol and acetone are highly flammable and must be handled with care. A risk of fire exists.



- Do not replace the cover or turn the product ON before any solvent remnants on the cleaned parts have fully evaporated.

A risk of fire exists.



- Use only a small amount of cleaner at a time and take care not to spill any liquid. If this happens, immediately wipe it off.

A risk of fire exists.



- When using any solvent, ventilate the room well. Breathing large quantities of organic solvents can lead to discomfort.



4. Fuse

Fuse

! CAUTION

- CAUTION
Double pole / neutral fusing
- ATTENTION
Double pôle / Fusible sur le neutre

5. Used Batteries Precautions

Handling of batteries

! CAUTION

- ALL Areas

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

- Germany

VORSICHT!

Explosionsgefahr bei unsachgemäßem Austausch der Batterie. Ersatz nur durch denselben oder einen vom Hersteller empfohlenen gleichwertigen Typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

- France

ATTENTION

Il y a danger d'explosion s'il y a un remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

- Denmark

ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering. Udskiftning må kun ske med batteri af samme fabrikat og type. Levér det brugte batteri tilbage til leverandøren.

- Finland, Sweden

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu. Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

WARNING

Explosionsfara vid felaktigt batteribyte. Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren. Kassera använt batteri enligt fabrikantens instruktion.

- Norway

ADVARSEL

Eksplosjonsfare ved feilaktig skifte av batteri. Benytt samme batteritype eller en tilsvarende type anbefalt av apparatfabrikanten. Brukte batterier kasseres i henhold til fabrikantens instruksjoner.

[4] LASER SAFETY

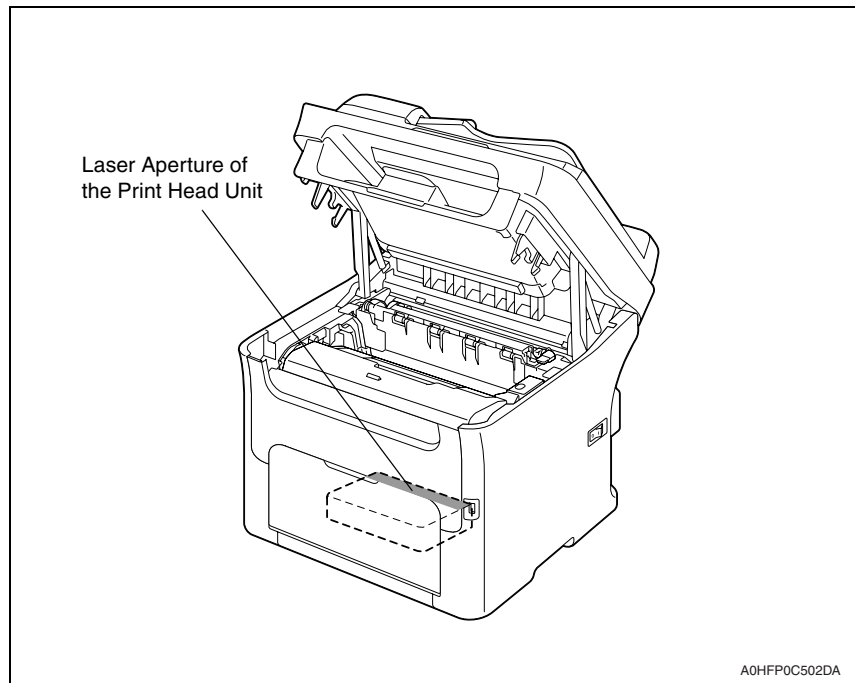
- This is a digital machine certified as a Class 1 laser product. There is no possibility of danger from a laser, provided the machine is serviced according to the instruction in this manual.

4.1 Internal Laser Radiation

| semiconductor laser | |
|-------------------------------------|--------------|
| Maximum power of the laser diode | 20 mW |
| Maximum average radiation power (*) | 13.3 μ W |
| Wavelength | 775 - 800 nm |

*at laser aperture of the Print Head Unit

- This product employs a Class 3B laser diode that emits an invisible laser beam. The laser diode and the scanning polygon mirror are incorporated in the print head unit.
- The print head unit is NOT A FIELD SERVICEABLE ITEM. Therefore, the print head unit should not be opened under any circumstances.



U.S.A., Canada (CDRH Regulation)

- This machine is certified as a Class 1 Laser product under Radiation Performance Standard according to the Food, Drug and Cosmetic Act of 1990. Compliance is mandatory for Laser products marketed in the United States and is reported to the Center for Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration of the U.S. Department of Health and Human Services (DHHS). This means that the device does not produce hazardous laser radiation.
- The label shown on page S-16 indicates compliance with the CDRH regulations and must be attached to laser products marketed in the United States.

CAUTION

- Use of controls, adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure.

| semiconductor laser | |
|----------------------------------|--------------|
| Maximum power of the laser diode | 20 mW |
| Wavelength | 775 - 800 nm |

All Areas

CAUTION

- Use of controls, adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure.

| semiconductor laser | |
|----------------------------------|--------------|
| Maximum power of the laser diode | 20 mW |
| Wavelength | 775 - 800 nm |

Denmark

ADVARSEL

- Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling. Klasse 1 laser produkt der opfylder IEC60825-1 sikkerheds kravene.

| halvlederlaser | |
|-----------------------------|--------------|
| Laserdiodens højeste styrke | 20 mW |
| bølgelængden | 775 - 800 nm |

Finland, Sweden

**LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT****VAROITUS!**

- Laitteen käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle laser-säteilylle.

| puolijohdelaser | |
|-------------------------|--------------|
| Laserdiodin suurin teho | 20 mW |
| aallonpituus | 775 - 800 nm |

WARNING!

- Om apparaten används på annat sätt än i denna bruksanvisning specificerats, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

| halvledarlaser | |
|---------------------------------------|--------------|
| Den maximala effekten för laserdioden | 20 mW |
| våglängden | 775 - 800 nm |

VARO!

- Avattaessa ja suojauslukitus ohitettaessa olet alttiina näkymättömälle laser-säteilylle. Älä katso säteeseen.

WARNING!

- Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

Norway

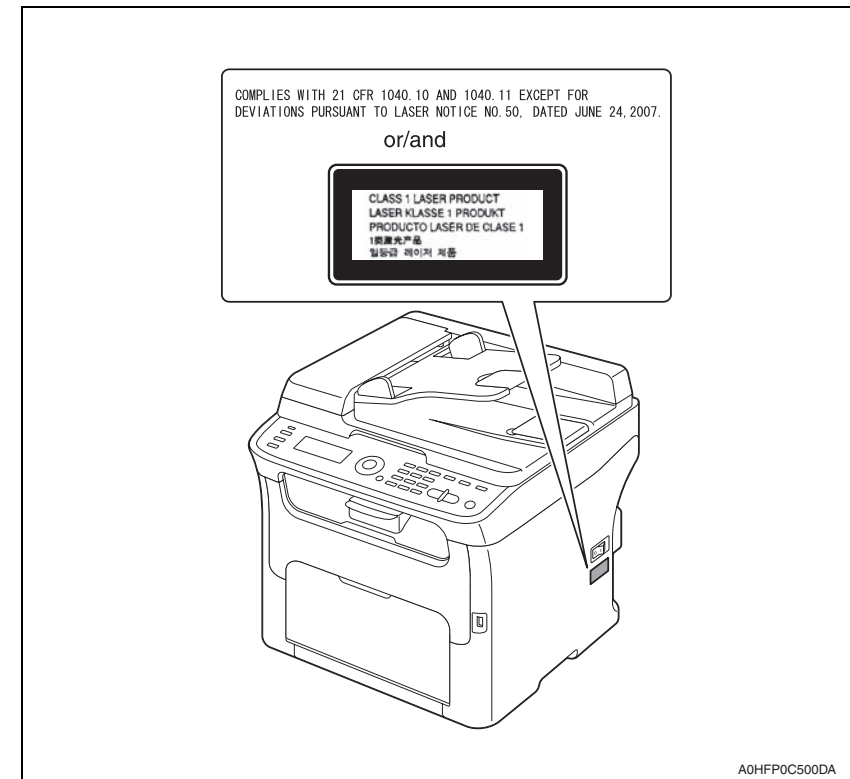
ADVERSEL

- Dersom apparatet brukes på annen måte enn spesifisert i denne bruksanvisning, kan brukeren utsettes for usynlig laserstrålning, som overskrider grensen for laser klass 1.

| halvleder laser | |
|----------------------------------|--------------|
| Maksimal effekt till laserdioden | 20 mW |
| bølgelengde | 775 - 800 nm |

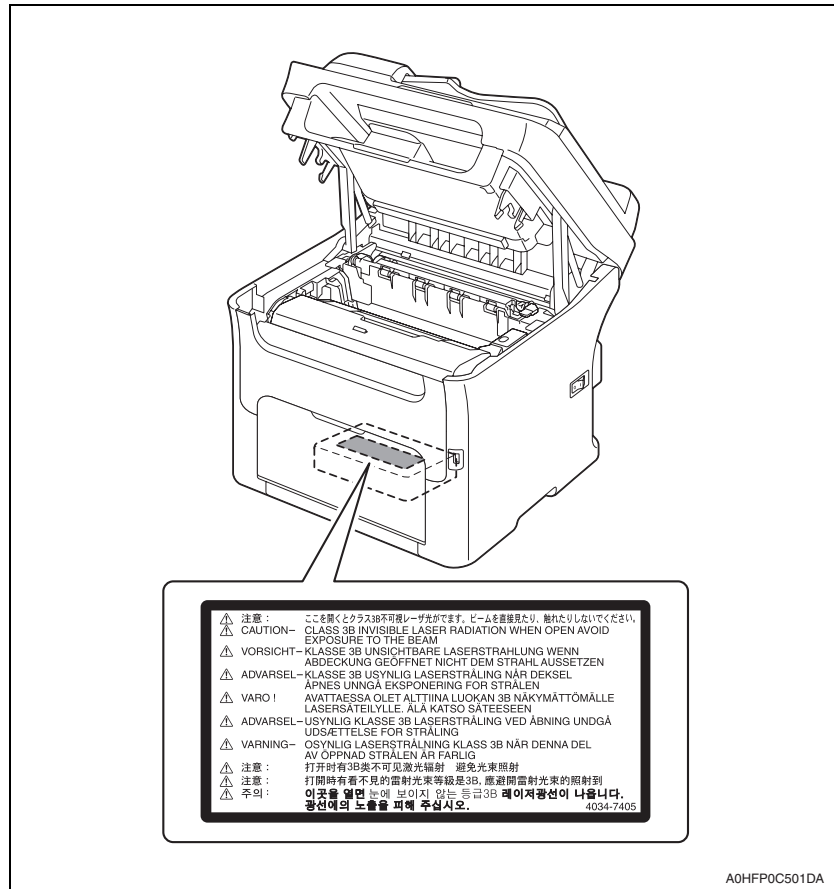
4.2 Laser Safety Label

- A laser safety label is attached to the inside of the machine as shown below.



4.3 Laser Caution Label

- A laser caution label is attached to the outside of the machine as shown below.



4.4 PRECAUTIONS FOR HANDLING THE LASER EQUIPMENT

- When laser protective goggles are to be used, select ones with a lens conforming to the above specifications.
- When a disassembly job needs to be performed in the laser beam path, such as when working around the printerhead and PC Drum, be sure first to turn the printer OFF.
- If the job requires that the printer be left ON, take off your watch and ring and wear laser protective goggles.
- A highly reflective tool can be dangerous if it is brought into the laser beam path. Use utmost care when handling tools on the user's premises.
- The Print Head is not to be disassembled or adjusted in the field. Replace the Unit or Assembly including the Control Board. Therefore, remove the Laser Diode, and do not perform Control Board trimmer adjustment.

SAFETY INFORMATION

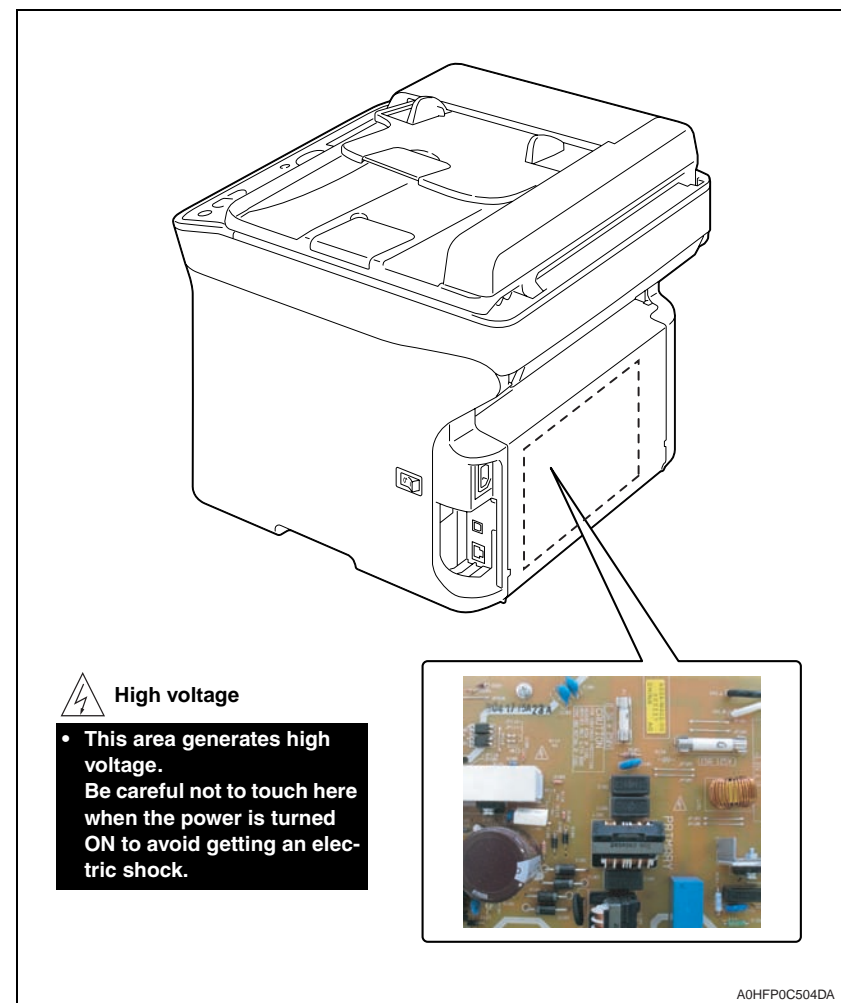
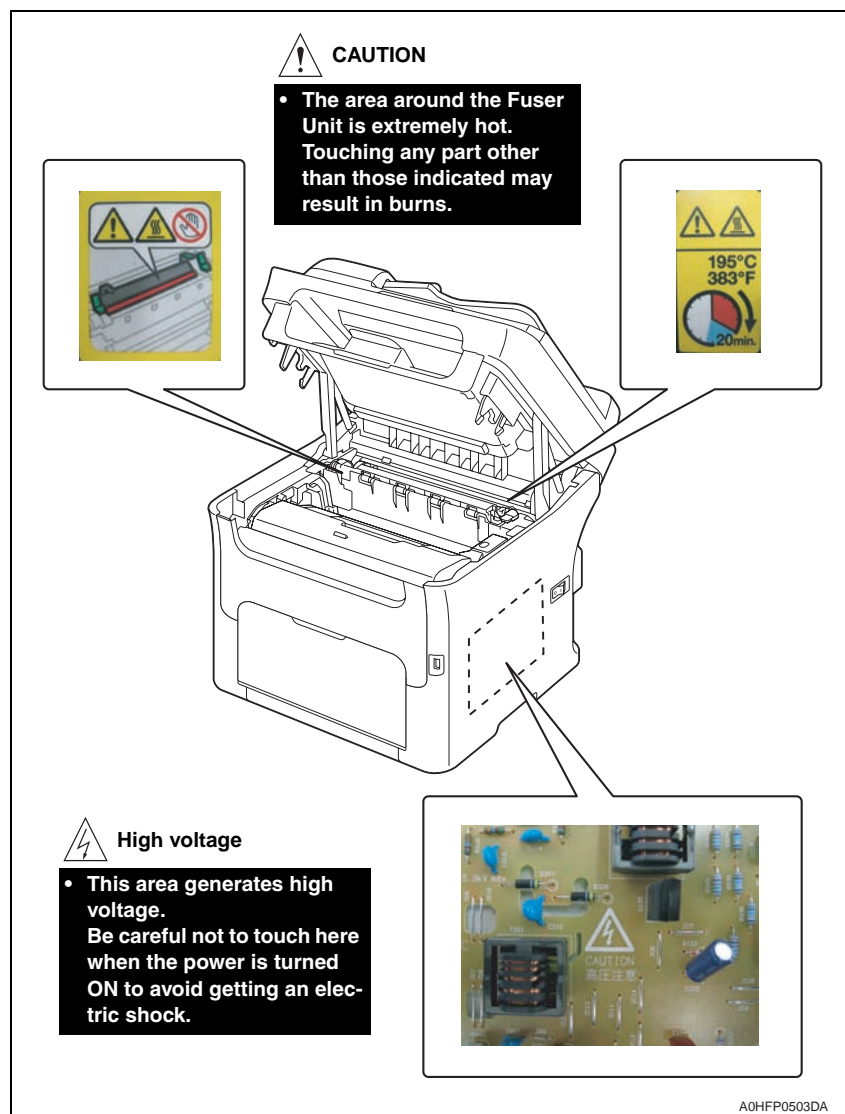
IMPORTANT NOTICE

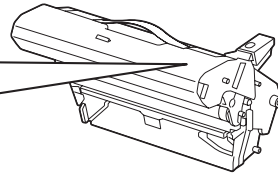
The Center for Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration implemented regulations for laser products manufactured since August 1, 1976. Compliance is mandatory for products marketed in the United States.

This copier is certified as a "Class 1" laser product under the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard according to the Radiation Control for Health and Safety Act of 1968. Since radiation emitted inside this copier is completely confined within protective housings and external covers, the laser beam cannot escape during any phase of normal user operation.

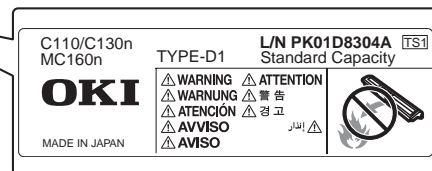
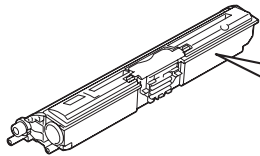
INDICATION OF WARNING ON THE MACHINE

Caution labels shown below are attached in some areas on/in the machine.
When accessing these areas for maintenance, repair, or adjustment, special care should be taken to avoid burns and electric shock.



**WARNING**

- Do not burn used Imaging Cartridge.
Toner expelled from the fire is dangerous.

**WARNING**

- Do not burn used Toner Cartridges.
Toner expelled from the fire is dangerous.

A0HFP0505DA

**CAUTION:**

- You may be burned or injured if you touch any area that you are advised by any caution label to keep yourself away from. Do not remove caution labels. And also, when the caution label is peeled off or soiled and cannot be seen clearly, replace it with a new caution label.

MEASURES TO TAKE IN CASE OF AN ACCIDENT

1. If an accident has occurred, the distributor who has been notified first must immediately take emergency measures to provide relief to affected persons and to prevent further damage.
2. If a report of a serious accident has been received from a customer, an on-site evaluation must be carried out quickly and ODC must be notified.
3. To determine the cause of the accident, conditions and materials must be recorded through direct on-site checks, in accordance with instructions issued by ODC.
4. For reports and measures concerning serious accidents, follow the regulations specified by every distributor.

Composition of the service manual

This service manual consists of Theory of Operation section and Field Service section to explain the main machine and its corresponding options.

Theory of Operation section gives, as information for the CE to get a full understanding of the product, a rough outline of the object and role of each function, the relationship between the electrical system and the mechanical system, and the timing of operation of each part.

Field Service section gives, as information required by the CE at the site (or at the customer's premise), a rough outline of the service schedule and its details, maintenance steps, the object and role of each adjustment, error codes and supplementary information.

The basic configuration of each section is as follows. However some options may not be applied to the following configuration.

<Theory of Operation section>

OUTLINE: Explanation of system configuration, product specifications, unit configuration, and paper path

COMPOSITION/OPERATION: Explanation of configuration of each unit, operating system, and control system

<Field service section>

OUTLINE: Explanation of system configuration, and product specifications

MAINTENANCE: Explanation of service schedule, maintenance steps, service tools, removal/reinstallation methods of major parts, and firmware version up method etc.

ADJUSTMENT/SETTING: Explanation of utility mode, service mode, and mechanical adjustment etc.

TROUBLESHOOTING: Explanation of lists of jam codes and error codes, and their countermeasures etc.

APPENDIX: Parts layout drawings, connector layout drawings, timing chart, overall layout drawing are attached.

Notation of the service manual

A. Product name

In this manual, each of the products is described as follows:

| | |
|--|-------------------------------|
| (1) MC160n | Main body |
| (2) Microsoft Windows NT 4.0: | Windows N T 4.0 or Windows NT |
| Microsoft Windows 2000: | Windows 2000 |
| Microsoft Windows XP: | Windows XP |
| Microsoft Windows Vista: | Windows Vista |
| When the description is made in combination of the OS's mentioned above: | |
| | Windows NT 4.0/2000 |
| | Windows NT/2000/XP/Vista |

B. Brand name

The company names and product names mentioned in this manual are the brand name or the registered trademark of each company.

C. Feeding direction

- When the long side of the paper is parallel with the feeding direction, it is called short edge feeding. The feeding direction which is perpendicular to the short edge feeding is called the long edge feeding.
- Short edge feeding will be identified with [S (abbreviation for Short edge feeding)] on the paper size. No specific notation is added for the long edge feeding.
When the size has only the short edge feeding with no long edge feeding, [S] will not be added to the paper size.

<Sample notation>

| Paper size | Feeding direction | Notation |
|------------|--------------------|----------|
| A4 | Long edge feeding | A4 |
| | Short edge feeding | A4S |
| A3 | Short edge feeding | A3 |

MC160n Main body

THEORY OF OPERATION

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MC160n Main body

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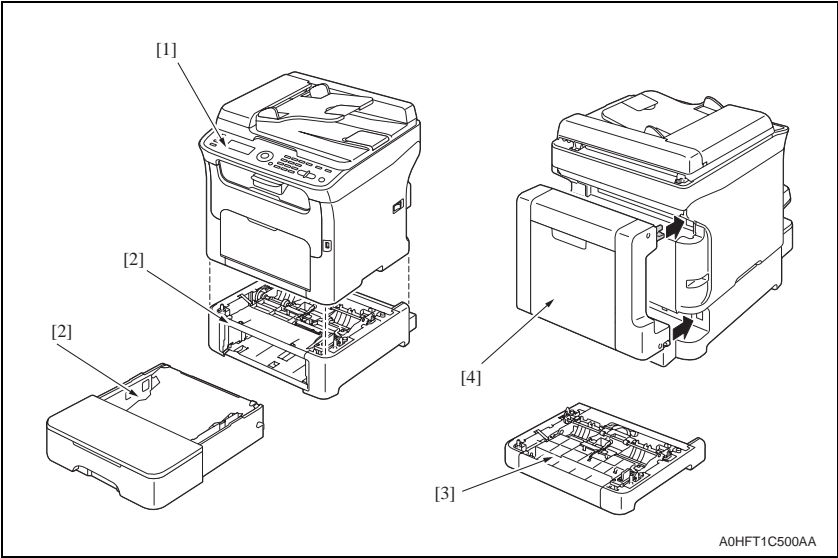
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OUTLINE

1. System configuration



- [1] MC160n

[2] Lower Feeder Unit (Option)
- [3] Duplex Option Attachment (Option)

[4] Duplex Option (Option)

2. Product specifications

A. Type

| | |
|-------------------------|--|
| Type | Desktop full-color laser beam printer |
| Printing system | Semiconductor laser and electrostatic image transfer to plain paper |
| Exposure system | 2 laser diodes and polygon mirror |
| PC drum type | OPC (organic photo conductor) |
| Photoconductor cleaning | Blade cleaning system |
| Resolution | 1200 x 600 dpi, 600 x 600 dpi |
| Media feeding system | One-way system (Tray 1: 200 sheets) * Expandable to a two-way system by adding an optional Lower Feeder Unit. |
| Developing system | Single-element developing system |
| Charging system | DC comb electrode scorotron system |
| Image transfer system | Intermediate transfer belt system |
| Media separating system | Curvature separation + Charge-neutralizing system |
| Fusing system | Roller fusing |
| Media exit system | Face down (Output tray capacity: 100 sheets) |

B. Functions

| | | |
|---|--|-------------------------------------|
| Warm-up time | Average 30 seconds (time to return to Ready mode from Energy Save mode) | |
| Process speed | Plain paper | 126.78 mm/second |
| | Thick stock | 63.39 mm/second |
| First-Page-Out Time (A4/Letter, Plain paper) | Full color | 1-sided: 20 seconds |
| | Monochrome | 1-sided: 11 seconds |
| First copy time (A4/Letter, Plain paper) | Full color | 1-sided: 32 seconds (600 x 300 dpi) |
| | Monochrome | 1-sided: 23 seconds (600 x 300 dpi) |
| Print speed (A4/Letter, Plain paper) | Full color | 1-sided: 5 pages/minute |
| | Monochrome | 1-sided: 20 pages/minute |
| Custom media sizes | Paper width: 92 to 216 mm (3.6" to 8.5") | |
| | Paper length: 195 to 356 mm (Plain paper) | |
| | 184 to 297 mm (Thick paper) | |
| Media types | <ul style="list-style-type: none"> • Plain paper (60 to 90 g/m²) • Thick stock 1 (91 to 163 g/m²) • Thick stock 2 (164 to 209 g/m²) • Postcards • Envelopes • Letterhead • Label stock | |
| Tray capacities | Plain paper and letterhead | :200 sheets |
| | Thick stock, postcards, labels stock, and glossy stock | :50 sheets |
| | Envelopes | :10 sheets |

Lower Feeder Unit: Only plain paper and recycled paper weighing 60 to 90 g/m² (16 to 24 lb) can be loaded.

Duplex Option: Only plain paper and recycled paper weighing 60 to 90 g/m² (16 to 24 lb) can be fed through the unit.

C. Maintenance

| | |
|--------------------|---|
| Machine durability | 50,000 prints or 5 years, whichever comes first |
|--------------------|---|

D. Machine specification

| | | |
|-----------------------|--|--|
| Power requirements | voltage: | AC 120 V ± 10 % AC 220 to 240 V ± 10% |
| | Frequency: | 60 Hz ± 3 Hz (for North america) 50/60 Hz ± 3 Hz (for Europe) |
| Max power consumption | 990 W or less (120 V) 1060 W or less (220 V to 240 V) | |
| Dimensions | 405 mm (W) x 427 mm (D) x 432 mm (H) | |
| Weight | 21.0 kg (including the consumables) | |
| Operation noise | During standby | 38 dB (A) |
| | During printing | 49 dB (A): monochrome |

E. Operating environment

| | |
|-------------|--|
| Temperature | 10 to 35 °C / 50 to 95 °F (with a fluctuation of 10 °C / 18 °F or less per hour) |
| Humidity | 15% to 85% (with a fluctuation of 20% or less per hour) |

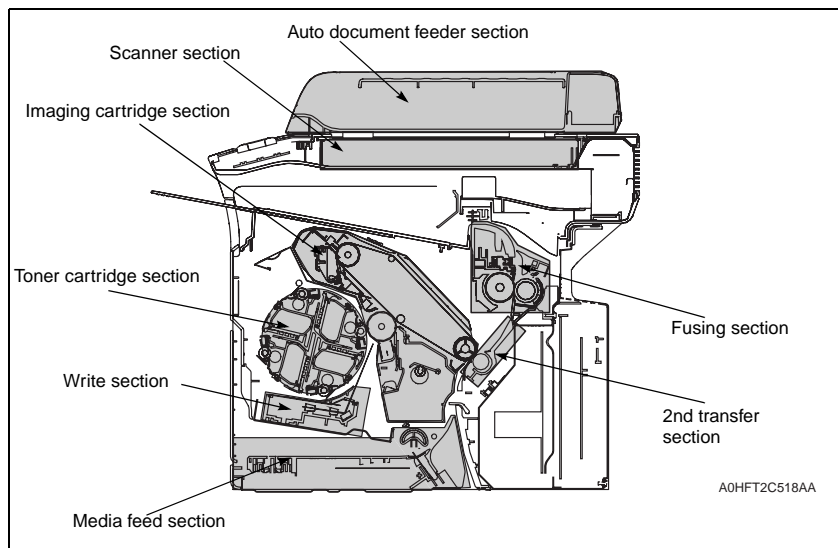
F. Controller

| | |
|-----------------|---|
| Type | Built-in type controller |
| Standard memory | 128MB |
| Interfaces | USB 2.0 (High Speed) compliant, 10Base-T/100Base-TX Ethernet, Host USB (for scan to USB memory) |
| Support | <ul style="list-style-type: none"> - Microsoft Windows Vista Home Basic/Home Premium/Ultimate/Business/Enterprise, Windows Vista Home Basic/Home Premium/Ultimate/Business/Enterprise x64 Edition, Windows XP Home Edition/Professional (Service Pack 2 or later), Windows XP Professional x64 Edition, Windows Server 2003, Windows Server 2003 x64 Edition, Windows 2000 (Service Pack 4 or later) - Mac OS X (10.2.8 or later; We recommend installing the latest patch) |

NOTE

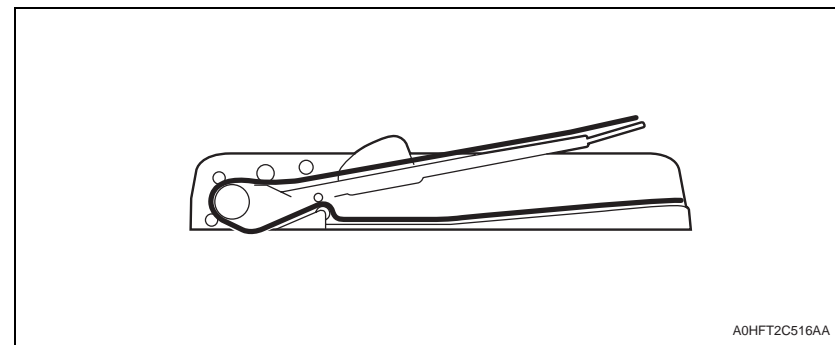
- These specifications are subject to change without notice.

3. Center cross section

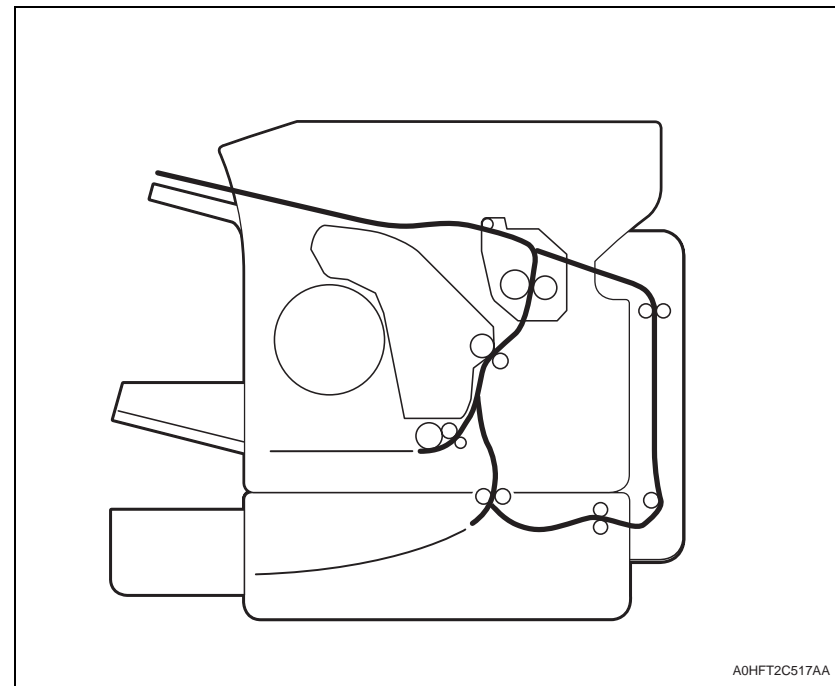


4. Media path

<Auto document feeder section>



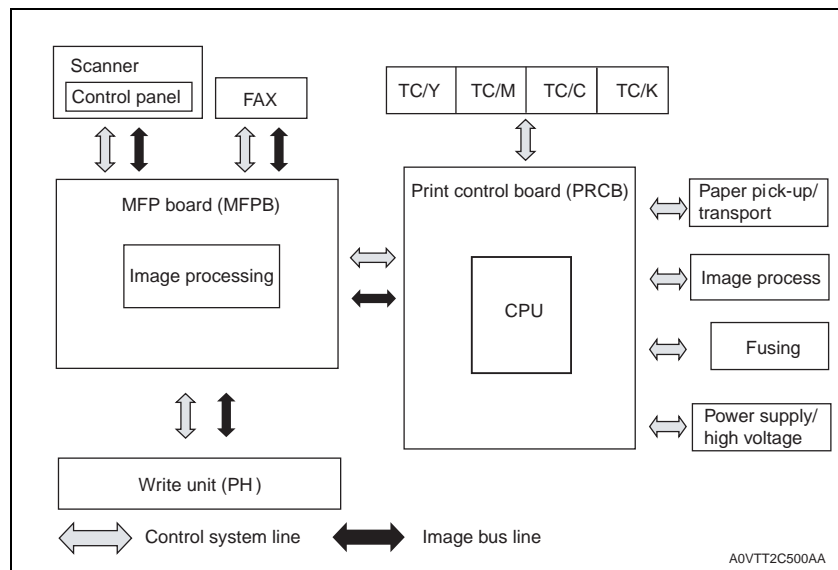
<Main body>



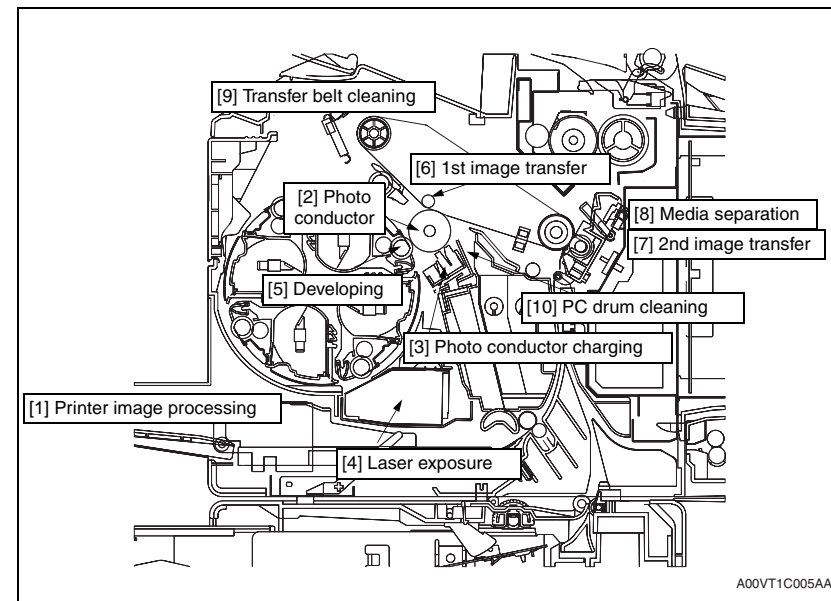
COMPOSITION/OPERATION

5. Overall composition

5.1 Control block diagram

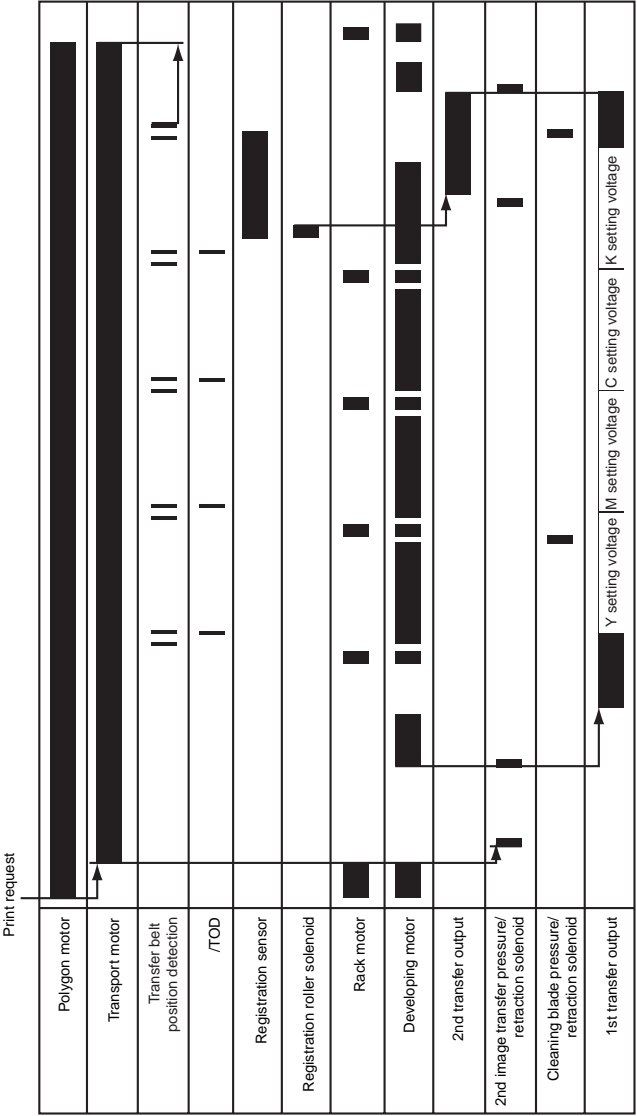


5.2 Image creation process



| | | |
|------|--------------------------|---|
| [1] | Printer image processing | <ul style="list-style-type: none"> The intensity of the laser light is controlled by the image signal sent from the host computer. |
| [2] | Photo conductor | <ul style="list-style-type: none"> The image projected onto the surface of the photo conductor is converted to a corresponding electrostatic latent image. |
| [3] | Photo conductor charging | <ul style="list-style-type: none"> A negative DC charge layer is formed on the surface of the photo conductor. |
| [4] | Laser exposure | <ul style="list-style-type: none"> The surface of the photo conductor is irradiated with the laser light and an electrostatic latent image is thereby formed. |
| [5] | Developing | <ul style="list-style-type: none"> The toner, negatively charged in the Hopper, is attracted onto the electrostatic latent image formed on the surface of the photo conductor. It is thereby changed to a visible, developed image. A DC negative bias voltage is applied to the Developing roller, thereby preventing toner from sticking to the background image portion. |
| [6] | 1st image transfer | <ul style="list-style-type: none"> A DC positive voltage is applied to the backside of the transfer belt, thereby allowing the visible, developed image on the surface of the photo conductor to be transferred onto the transfer belt. |
| [7] | 2nd image transfer | <ul style="list-style-type: none"> A DC positive voltage is applied to the backside of the media, thereby allowing the visible, developed image on the surface of the transfer belt to be transferred onto the media. |
| [8] | Media separation | <ul style="list-style-type: none"> The media, which has undergone the 2nd image transfer process, is neutralized. |
| [9] | Transfer belt cleaning | <ul style="list-style-type: none"> A charge is applied to the transfer belt. By potential difference, residual toner on the surface of the transfer belt is collected for cleaning. |
| [10] | Photo conductor cleaning | <ul style="list-style-type: none"> The residual toner left on the surface of the photo conductor is scraped off. |

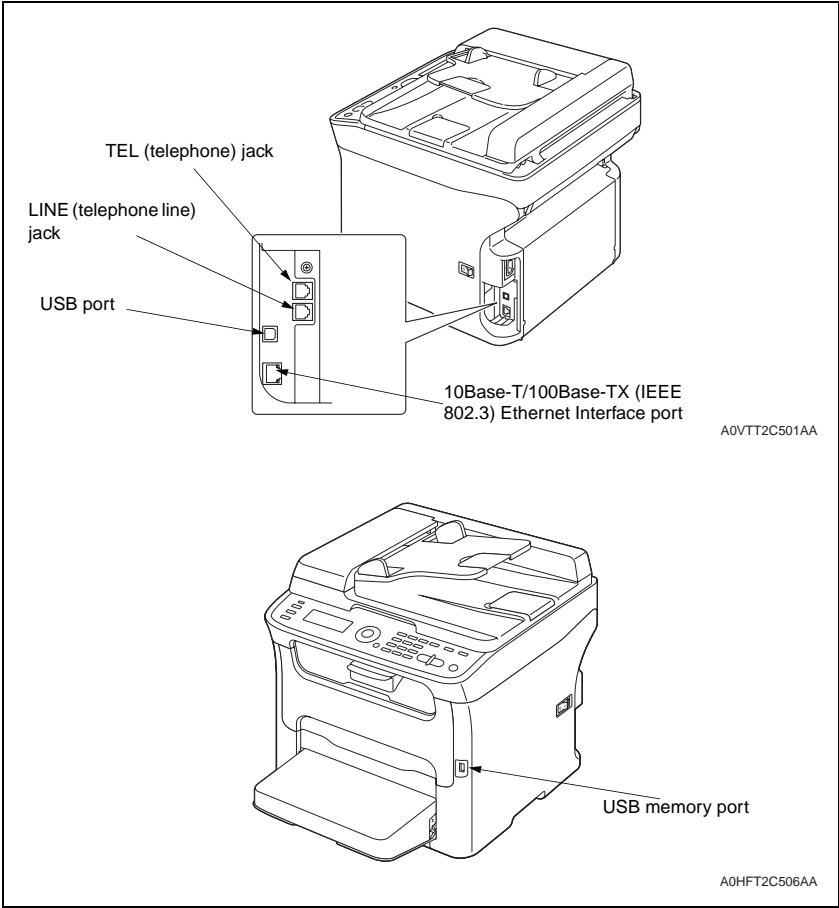
5.3 Operation sequence



A034T2E579AA

6. Interface section

6.1 Composition



| Type | Application |
|---|------------------------------|
| TEL (telephone) jack | For telephone connection |
| LINE (telephone line) jack | For fax machine connection |
| USB port | For PC to printer connection |
| 10Base-T/100Base-TX (IEEE802.3) Ethernet Interface port | For network |
| USB memory port | For USB memory |

7. Scanner section

7.1 Composition

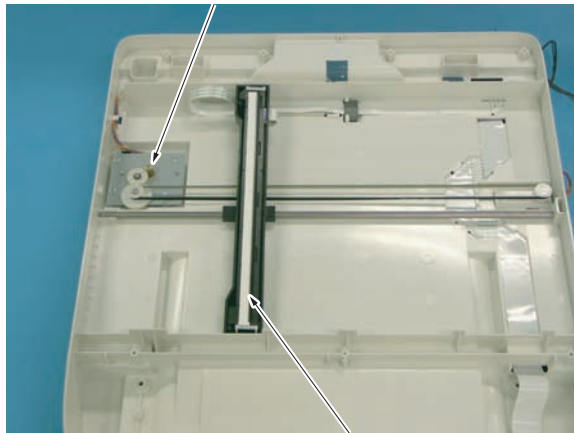


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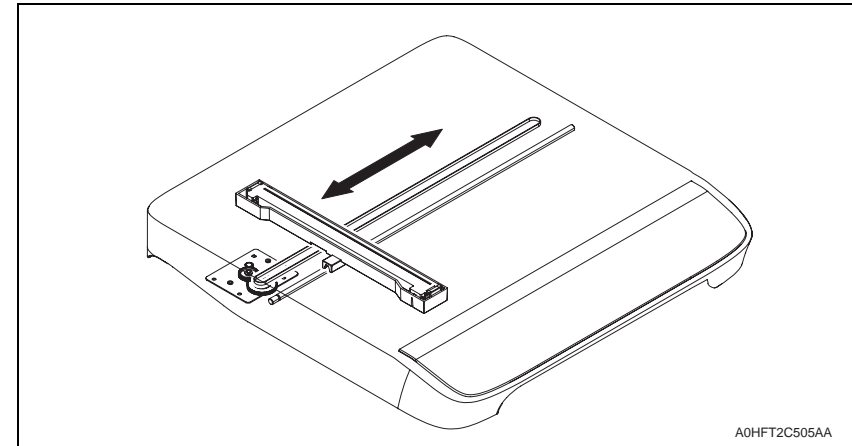
Scanner motor (M101)



Exposure unit

A0HFT2C512AA

7.2 Drive



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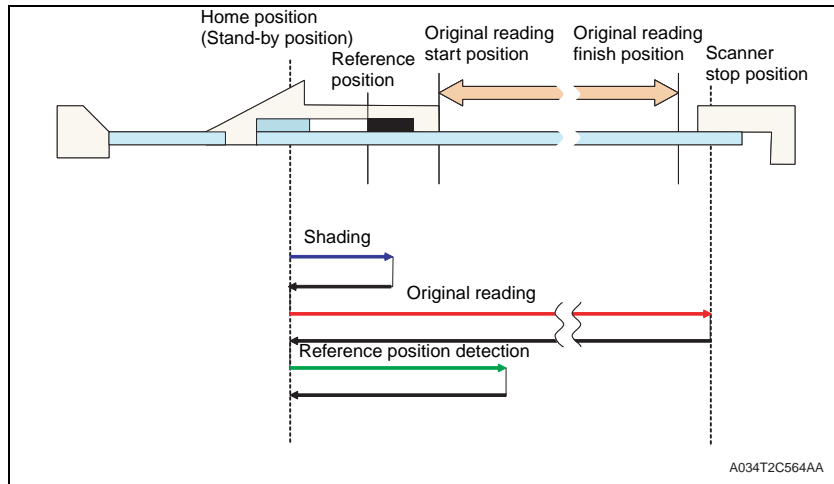
7.3 Operation

7.3.1 When the Start key is pressed

A. Original reading mode

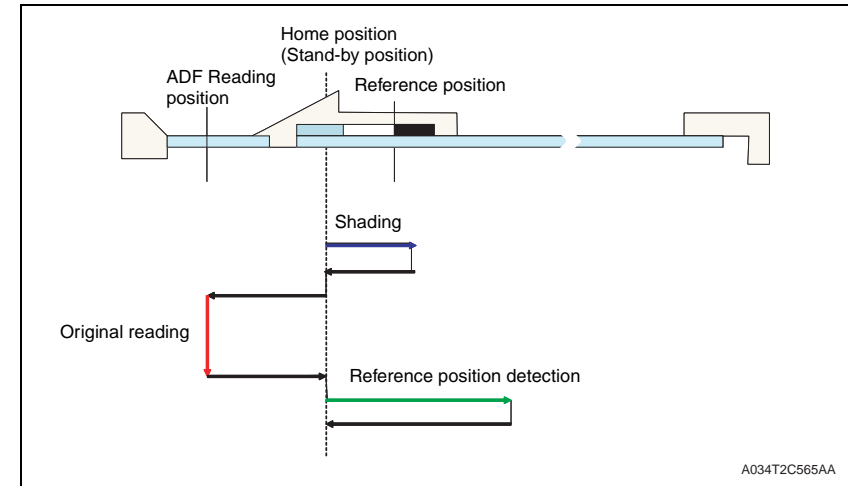
(1) Original cover mode

1. Press the start key, and the LED lights ON.
2. The exposure units moves from the home position (stand-by position) reading the shading sheet to make a shading compensation.
3. The exposure units moves to the stand-by position.
4. Original image reading starts from the start position of original reading.
5. When the original reading completes, it moves to scanner stop position.
6. After the reading completes, the exposure lamp lights OFF and it moves to the stand-by position.
7. It moves again to detect the reference position.
8. It moves to the stand-by position and stops there.



(2) DF mode

1. Press the start key, and the LED lights ON.
2. The exposure units moves from the home position (stand-by position) reading the shading sheet to make a shading compensation.
3. The exposure units moves to the stand-by position.
4. It moves to ADF reading position and original image reading starts.
5. After the reading completes, the exposure lamp lights OFF and it moves to the stand-by position.
6. After it moves again to detect the reference position, it moves to the stand-by position and stops there.



7.3.2 Home position detection

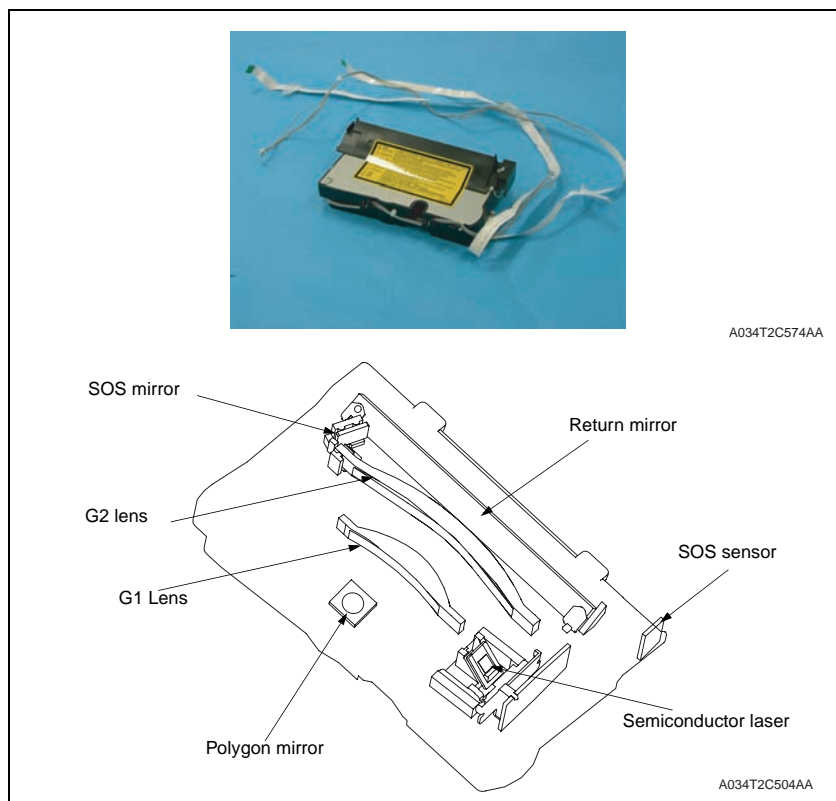
- Reading parts doesn't have a sensor to detect the home position of the scanner.
- Therefore the green LED lights on while the scanner is moving so that the reference positions to be the boarder between the white and black of the shading sheet is searched and the scanner moves from that position to the home position where locates far to the given distance. Home position detection is conducted when power is On and the scan completes its moving.

7.3.3 Shading compensation

- This shading compensation function compensates reading quality dispersion due to sensitivity uniformity of image element of each CIS sensor or LED light distribution irregularity.
- Shading compensation is carried out immediately before the original glass reading and ADF original reading.

8. Write section (PH section)

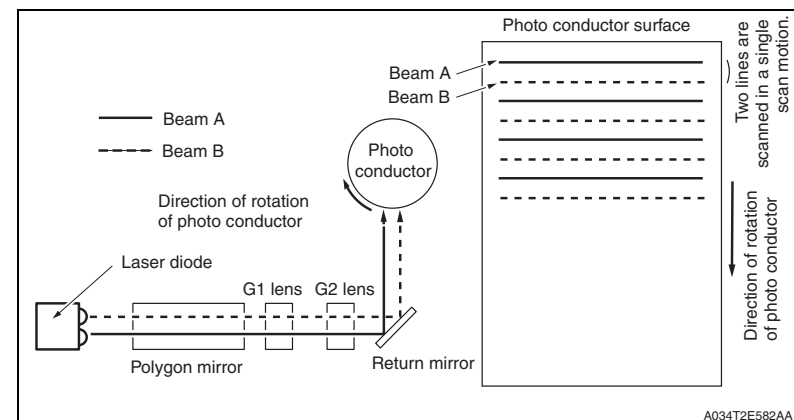
8.1 Composition



8.2 Operation

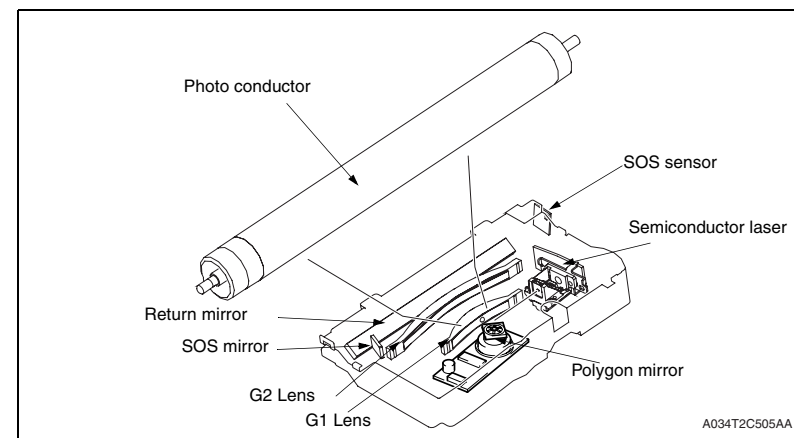
8.2.1 Outline

- The surface of the photo conductor is irradiated with a laser light and an electrostatic latent image is thereby formed.
- The polygon mirror has four faces. The machine uses a two-beam array LD to inhibit the speed of the polygon mirror from increasing because of the decreased number of faces the polygon mirror has as compared with the conventional models.
- The two-beam array LD consists of two LD elements arranged vertically. Two lines are scanned with two laser beams emitted from these two LD elements through a single face of the polygon mirror.



8.2.2 Laser exposure process

1. The laser light emitted from the Semiconductor laser strikes the polygon mirror.
2. The polygon mirror with four faces is rotated at high speeds by the polygon motor.
3. The SOS sensor ensures that the laser light emission start timing remains constant for each line of main scan.



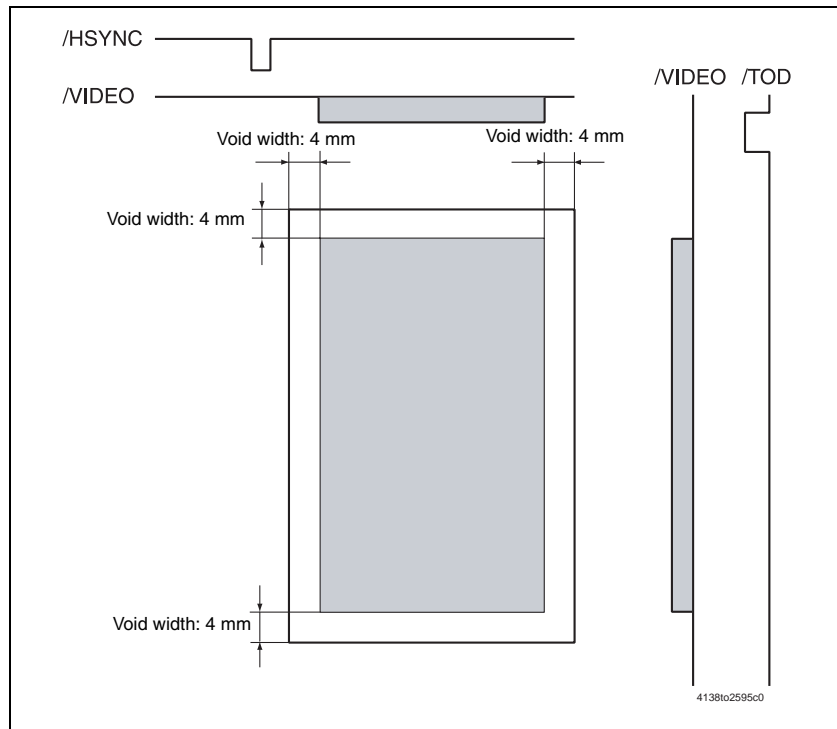
8.2.3 Laser emission area

A. Main scan direction (CD)

- The print start position in the CD direction is determined by the CD print start signal (/HSYNC) that is output from the MFP board (MFPB) and the width of the media.
- The laser emission area is determined by the media size. The area of 4 mm on both edges of the media is, however, the void image area.

B. Sub scan direction (FD)

- The print start position in the FD direction is determined by the Image write start signal (/TOD) that is output from the MFP board (MFPB) and the length of the media.
- The laser emission area is determined by the media size. The area of 4 mm on both the leading and trailing edges of the media is, however, the void image area.

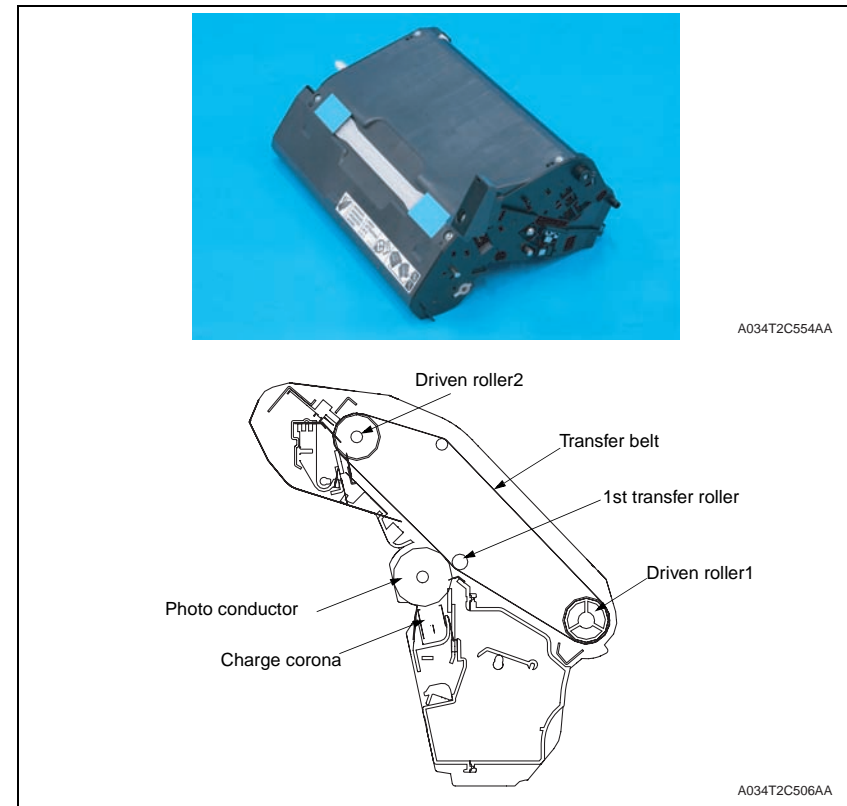


8.2.4 Image stabilization control item

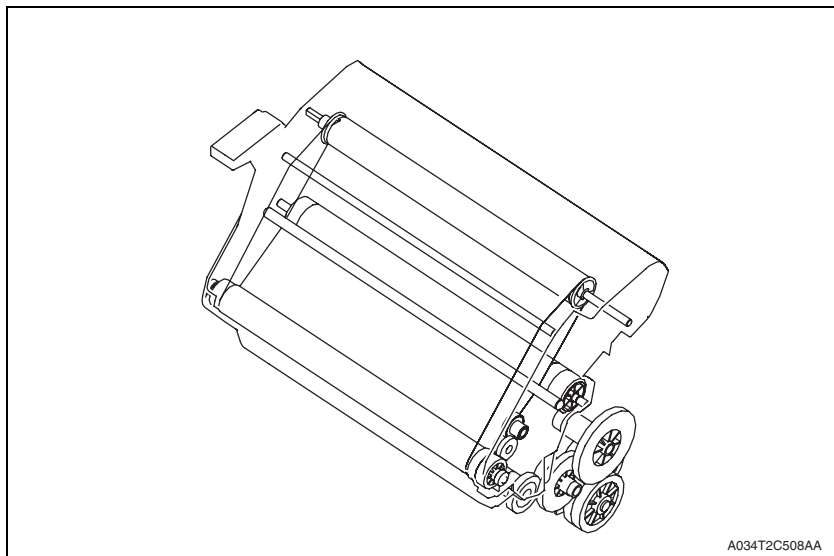
- LD intensity control

9. Imaging cartridge section

9.1 Composition



9.2 Drive



9.3 Operation

9.3.1 Imaging cartridge (IC) life control

A. New DC detection

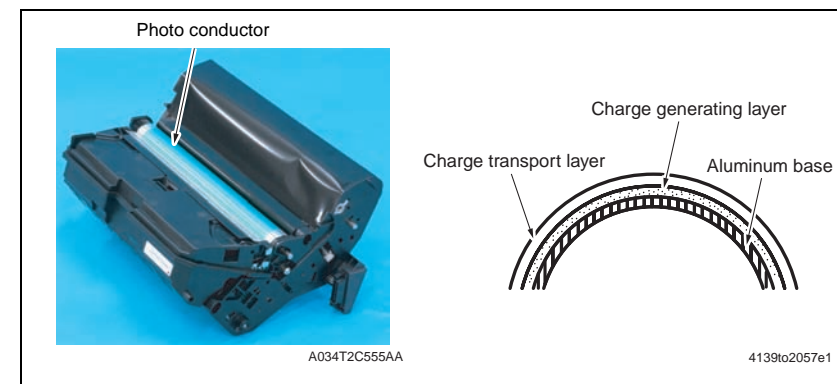
- The machine attempts to perform a new IC detection sequence when the power switch is turned OFF and ON, or the Front door is closed.
- If no new IC is detected, the image stabilization sequence is not carried out.
- If a new IC is detected, the image stabilization sequence is carried out.
- The imaging cartridge shipped with the machine does not have the function to detect a new IC.

B. Reaching the life

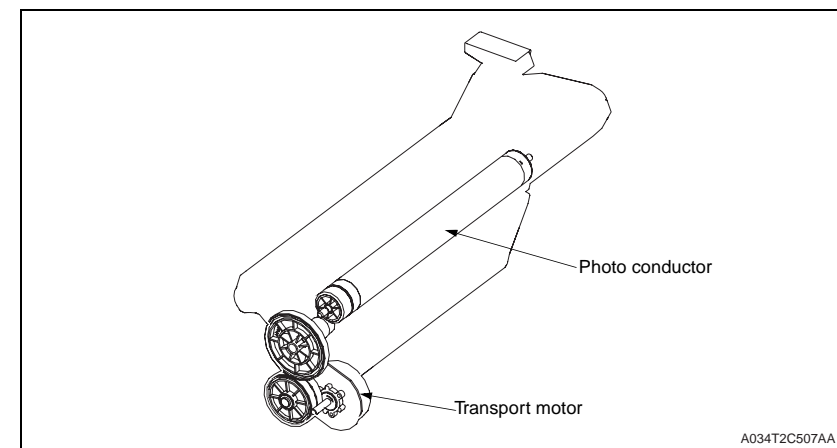
- The life counter is reset when a new IC is detected.
- The machine gives a warning message when the life value is reached (printing will be continued). When the Waste toner reaches its full level, the initiation of any new print cycle will be prohibited. The machine then prompts the user to replace the IC.

10. Photo conductor section

10.1 Composition



10.2 Drive



10.3 Operation

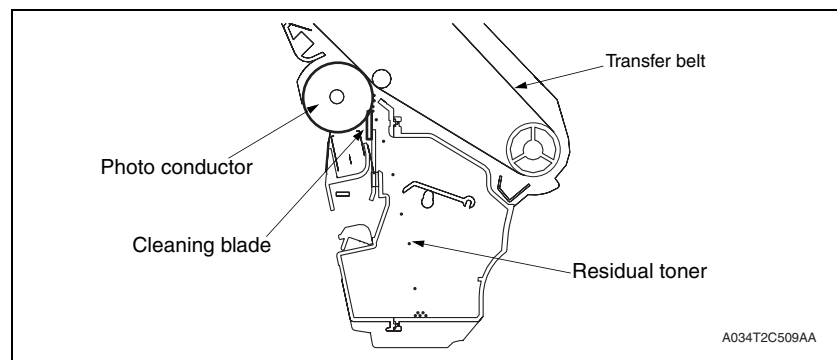
10.3.1 Photo conductor drive mechanism

A. Photo conductor drive

- The photo conductor is driven by the Main motor (M1).

10.3.2 Photo conductor cleaning mechanism

- The cleaning blade is pressed up against the surface of the photo conductor, scraping residual toner off the surface.
- The toner scraped off the surface of the photo conductor is collected in the drum cartridge.

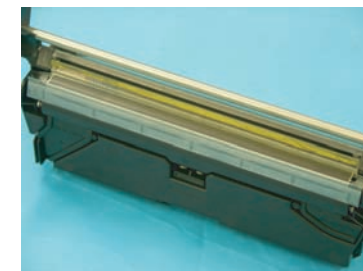


11. Charge corona section

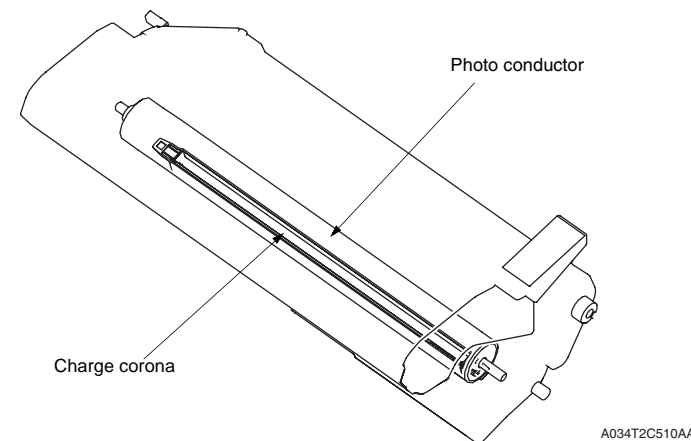
11.1 Composition



A034T2C570AA



A034T2C569AA



11.2 Operation

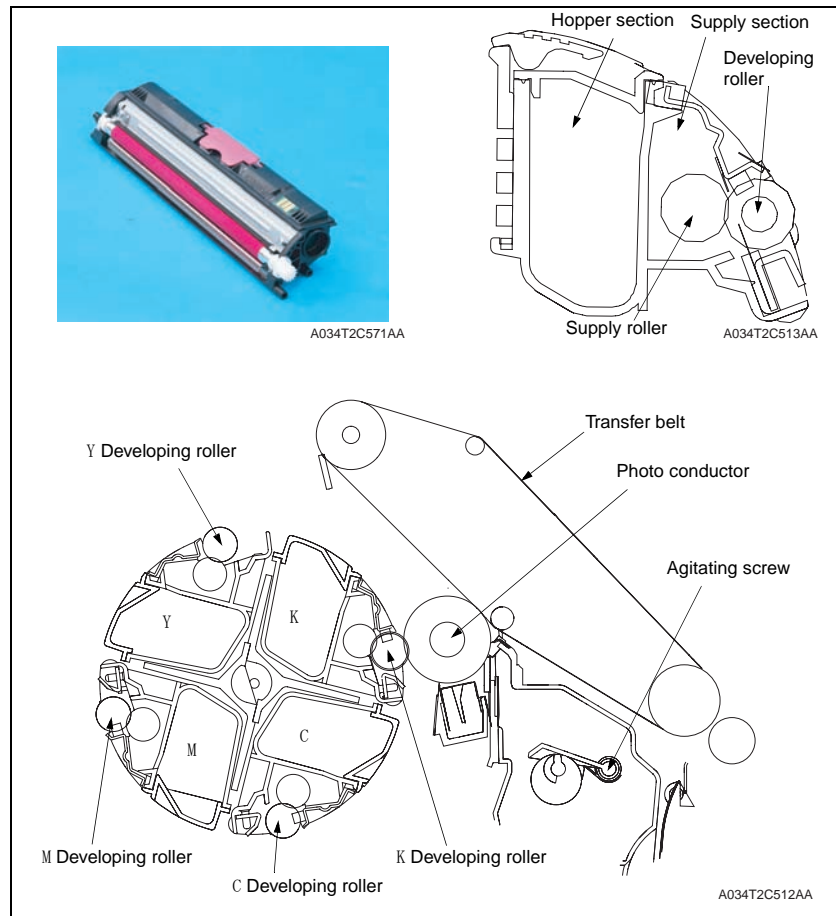
11.2.1 Charge corona control

A. Charging grid

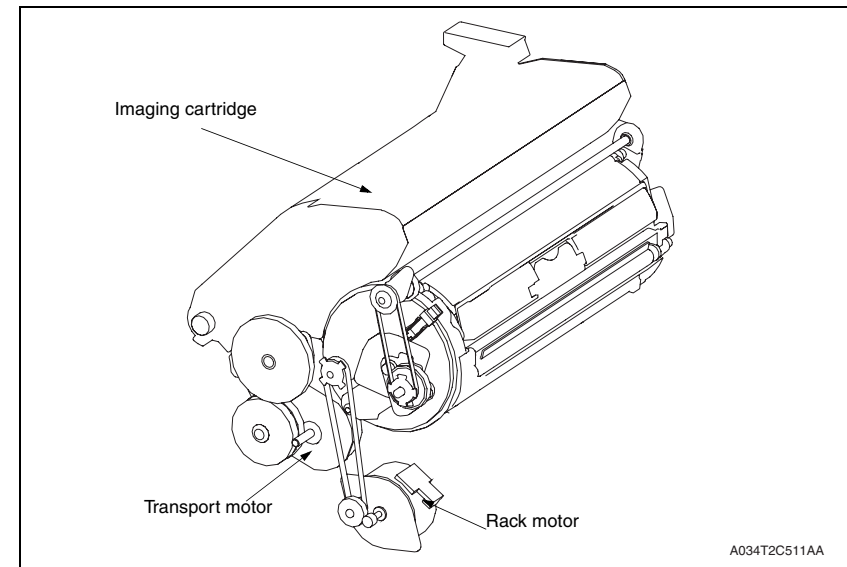
- The photo conductor is charged through corona discharge from the photo conductor charge corona.
- The photo conductor is charged via a grid mesh, which ensures that an even charge is applied to the entire surface of the photo conductor.
- The photo conductor charge corona of a comb electrode type discharges only to the grid mesh side, involving a smaller amount of ozone produced as compared with the wire electrode.
- Charge corona output rating: -500uA

12. Developing section

12.1 Composition



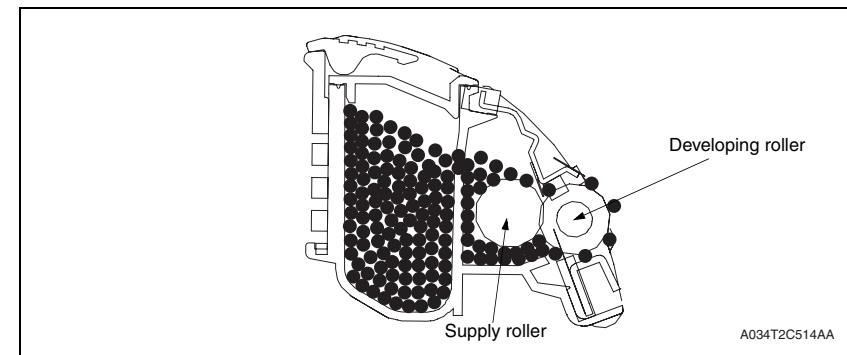
12.2 Drive



12.3 Operation

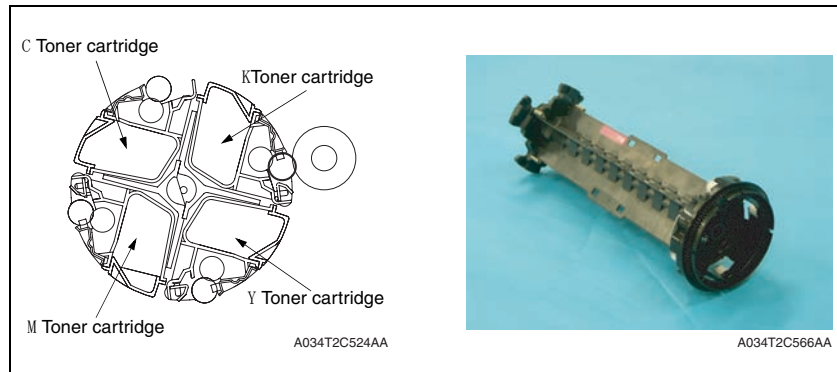
12.3.1 Toner flow

- Toner stored in the hopper is conveyed into the toner supply portion through rotation of the toner cartridge rack.
- The toner conveyed into the toner supply portion is conveyed by the supply roller onto the developing roller.
- Toner then sticks to the electrostatic latent image formed on the surface of the photo conductor. That part of toner left on the surface of the developing roller is returned to the toner supply portion.



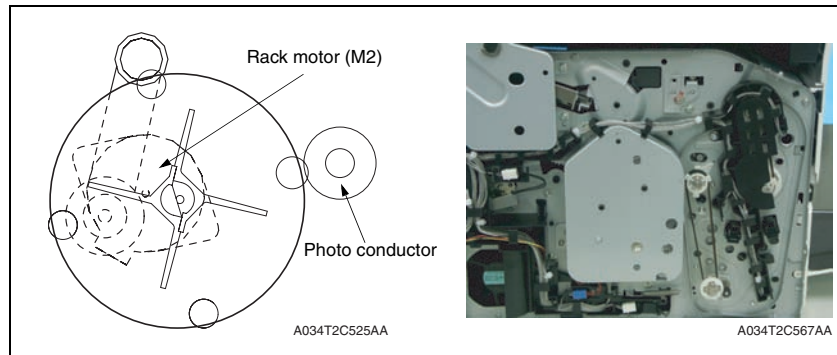
12.3.2 Toner Cartridge Rack

- The toner cartridge rack is mounted with four toner cartridges. The rack employs a rotary system.
- Development of the image of each color of toner is performed by rotating the toner cartridge rack.



A. Toner cartridge rack drive

- The toner cartridge rack is driven by the Rack motor (M2).

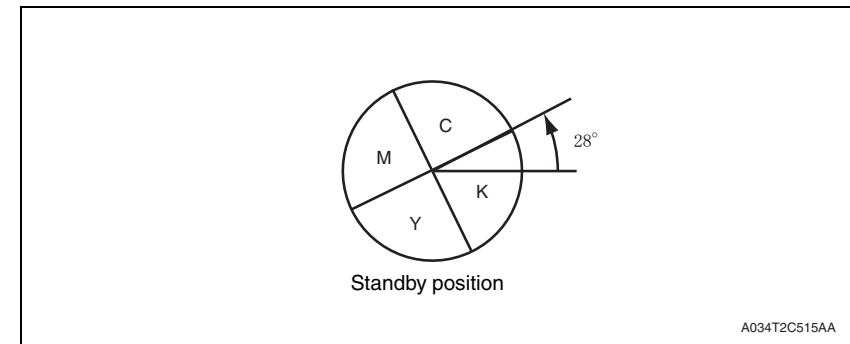


B. Toner cartridge rack stop position

- The toner cartridge rack must be brought to a stop so that the toner cartridge of each color of toner is located at its correct position. To accomplish this task, three stop positions are established: the standby (reference) position, the developing position, and the cartridge replacement position.
- The standby position refers to the position at which the toner cartridge rack is stationary when the machine is in the standby state. The toner cartridge rack is located at this standby position when the machine completes a warm-up cycle or waits for a print command.
- The development position refers to the position at which the toner cartridge rack stops during development of a specific color of toner. The development of a specific color of toner takes place at the development position.
- The cartridge replacement position refers to the position at which the toner cartridge rack is stopped for replacement of the toner cartridge of a specific color of toner.

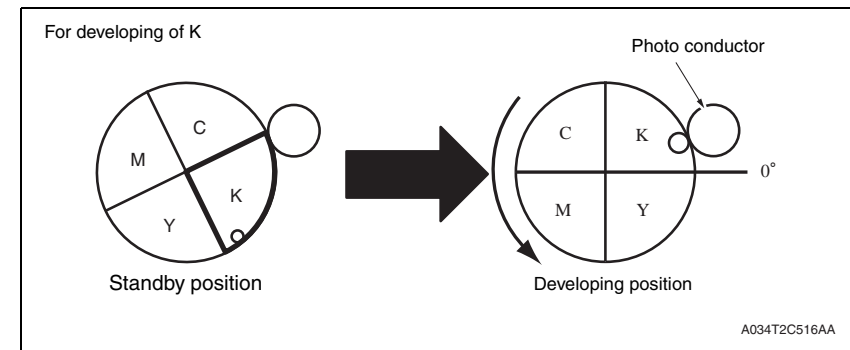
(1) Standby (reference) position

- The standby position is 28° before the developing position of the M toner cartridge.



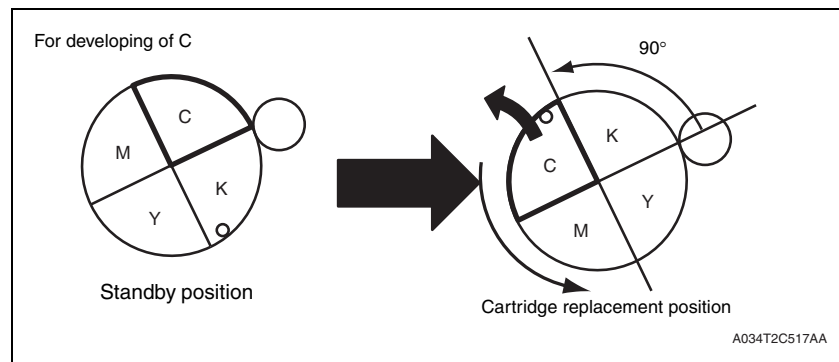
(2) Developing position

- The developing position is where the toner cartridge rack is rotated 62° from the standby position.

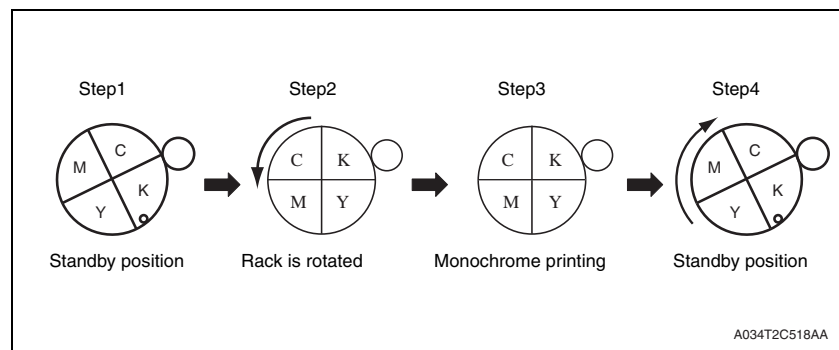


(3) Cartridge replacement position

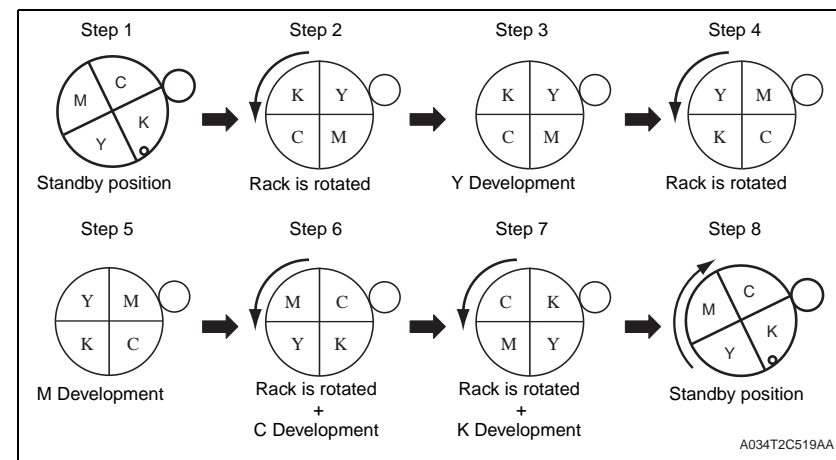
- The cartridge replacement position is where the toner cartridge rack is rotated 90° from the developing position.

**C. Monochrome printing process****(1) Operation sequence**

- The toner cartridge rack is stationary at the standby position.
- When a print request is received from the controller, the toner cartridge rack is rotated to bring the K toner cartridge to its developing position.
- Development of monochrome printing is started.
- When the development is completed, the toner cartridge rack is rotated in the opposite direction and brought to a stop at the standby position.

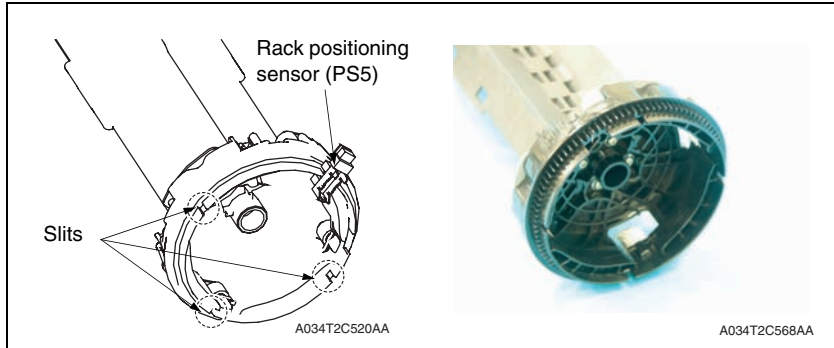
**D. Color printing process****(1) Operation sequence**

- The toner cartridge rack is stationary at the standby position.
- When a print request is received from the controller, the toner cartridge rack is rotated and temporarily stopped at the K developing position. The toner cartridge rack is then rotated again to bring the Y toner cartridge to its developing position.
- Development of Y is carried out.
- When development of Y is completed, the toner cartridge rack is rotated to bring the M toner cartridge to its developing position.
- Development of M is carried out.
- Similarly, the toner cartridge rack is rotated and development of C is carried out.
- Similarly, the toner cartridge rack is rotated and development of K is carried out.
- When development of K is completed, the toner cartridge rack is rotated in the opposite direction and brought to a stop at the standby position.

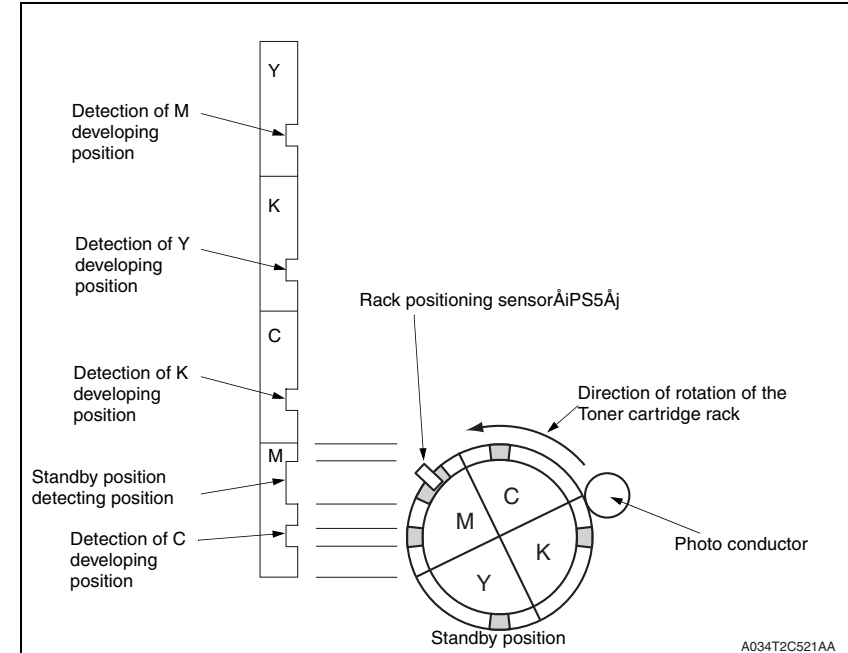


E. Toner cartridge rack stop position detection

- The toner cartridge rack stop position for each color of toner is detected by the Rack motor (M2) and the Rack positioning sensor (PS5).
- The toner cartridge rack is provided with slits, each for a specific color of toner. When the rack rotates, the Rack positioning sensor (PS5) is blocked and unblocked. A specific stop position is detected when the Rack positioning sensor (PS5) is blocked and unblocked.

**(1) Toner cartridge rack standby position**

- The M toner cartridge is provided with a slit for detecting the standby position.
- When the toner cartridge rack is rotated, the Rack positioning sensor (PS3) moves past the slit for detecting the standby position. This allows the machine to determine that the toner cartridge rack is currently at the standby position. Through pulse control of the rack motor, the machine then successfully brings the toner cartridge rack to its exact standby position.

**(2) Toner cartridge rack developing position**

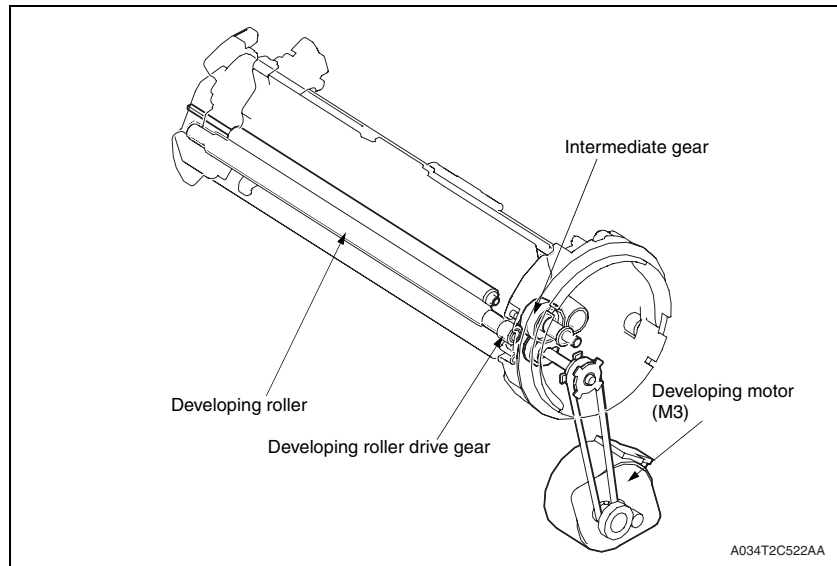
- To bring the toner cartridge rack to a stop at the corresponding developing position, the rack is rotated from the standby position 62° through pulse control of the rack motor.

(3) Cartridge replacement position

- When a request is made for replacing the toner cartridge of a specific color of toner (by means of an input from the control panel, upon a toner empty condition, or through an input made via the printer driver), the toner cartridge rack is rotated 70° from the developing position through pulse control of the rack motor.

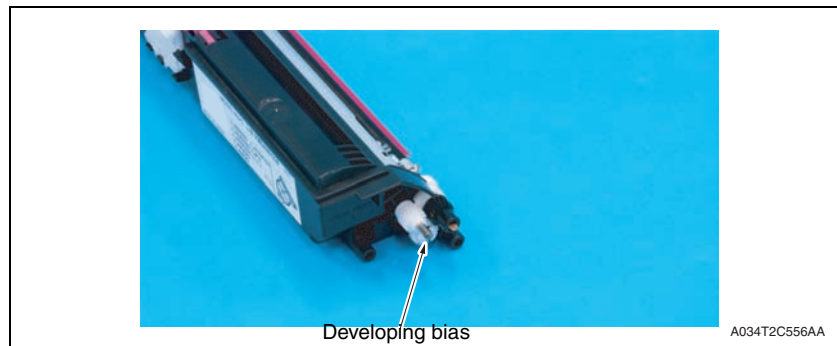
12.3.3 Developing Roller drive

- The developing roller is driven by the Developing motor (M3) and Intermediate gear.
- When the toner cartridge rack is stationary at the developing position, the developing roller drive gear comes into mesh with the Intermediate gear. The developing roller is then rotated through the drive provided by the Developing motor (M3) and Intermediate gear.



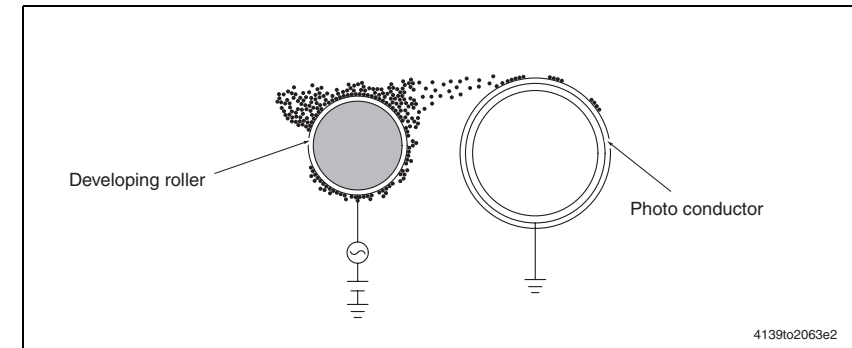
12.3.4 Developing bias

- The developing bias voltage (V_b) is applied to the developing roller so that an adequate amount of toner is attracted onto the surface of the photo conductor.
- The developing bias voltage (V_b) is supplied by the High voltage unit (HV).
- The developing bias voltage is applied to the developing roller via the supply roller.
- The developing bias voltage is also applied to the doctor blade.
- The developing bias voltage is turned ON at the same time that the developing motor is energized and turned OFF at the same time that the developing motor is deenergized.



12.3.5 Developing system

- The machine employs the single-component, non-contact developing system.
- In the non-contact, single-component developing system, the magnetic brush does not rub the surface of the photo conductor (or the image). This prevents a foggy image from occurring and the photo conductor from being worn.



12.3.6 Toner cartridge (TC) life control

A. Toner cartridge detection and new cartridge detection timing

- The machine attempts to perform a detection sequence when the front door is closed.

B. Toner cartridge detection

- The machine accesses the TC detection board (CSIC) to check for data stored in it. Using that data, the machine determines whether or not a toner cartridge is loaded.

C. New Toner cartridge detection

- After a toner cartridge has been detected, the machine determines whether it is new or not based on the data acquired.

D. Toner cartridge near empty and empty condition detection

- The amount of toner consumed is calculated from the number of dots produced for one printed page by the controller. A toner near empty condition and a toner empty condition are thereby detected.

<Toner near empty decision>

- The machine determines that there is a toner near empty condition when the image counter and dot counter reach the life value.

<Toner empty decision>

- The machine determines that there is a toner empty condition when a predetermined number of printed pages are produced after the toner near empty condition has been detected.

12.3.7 Image refresh mode

- The supply roller of the toner cartridge contacts the developing roller and is thereby deformed during a long period of shelf time.
- If a photo image or a solid image is printed after the supply roller is deformed, faint lines can at times occur at a pitch of 24 mm in the main scanning direction.
- The image refresh mode is made available to lessen this phenomenon.
- Use of this mode helps make less noticeable the faint lines occurring at a pitch of 24 mm in the main scanning direction.
- Executing the image refresh mode rotates the toner cartridge rack.

(1) Operation overview

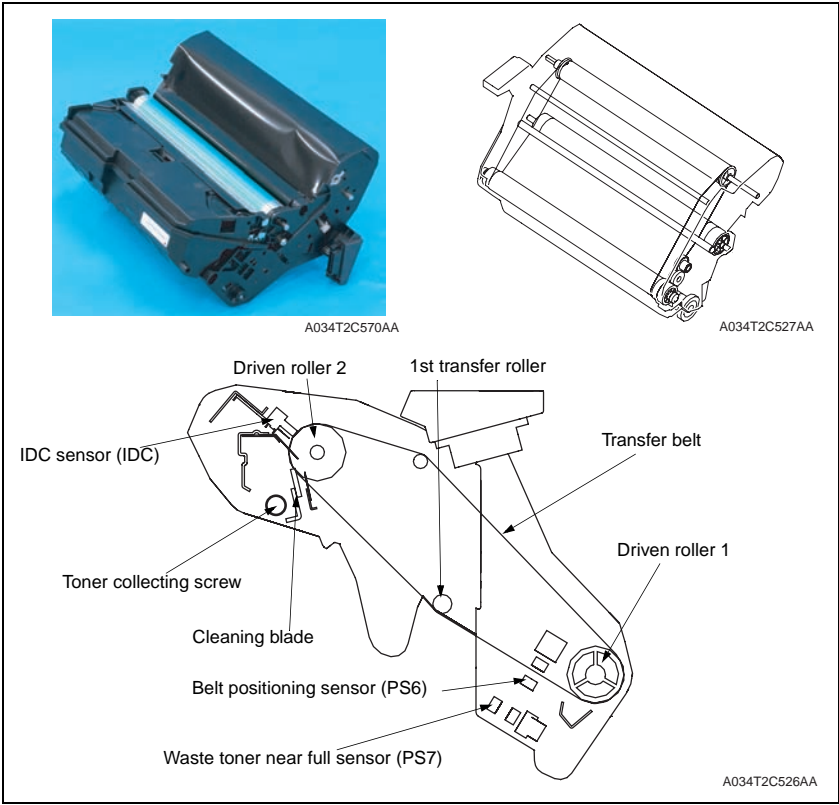
- The operation of the image refresh mode varies depending on the condition of the toner cartridge.

| Toner cartridge evaluation | | Operation overview |
|--|-----|--|
| If there is at least one toner cartridge, with which 30 or less printed pages have been produced since the detection of a new toner cartridge? | No | <ul style="list-style-type: none">• The developing roller is rotated for the toner cartridges of toner of all colors.• The developing roller is to be rotated for the period of time corresponding to producing ten printed pages. |
| | Yes | <ul style="list-style-type: none">• The developing roller is rotated for the specific toner cartridge in question. The developing roller is to be rotated for the period of time corresponding to producing 40 printed pages.• If there are toner cartridges of toner of two or more colors involved, the image refresh mode is carried out for the toner cartridge of toner of one color before that for the toner cartridge of toner of another color is started. |

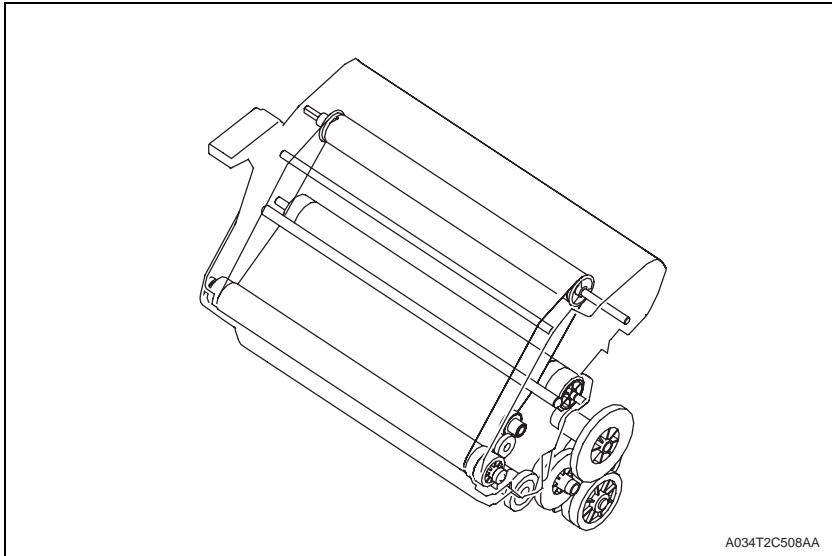
- The developing roller is rotated for about two minutes for one color of toner.

13. 1st transfer section

13.1 Composition



13.2 Drive



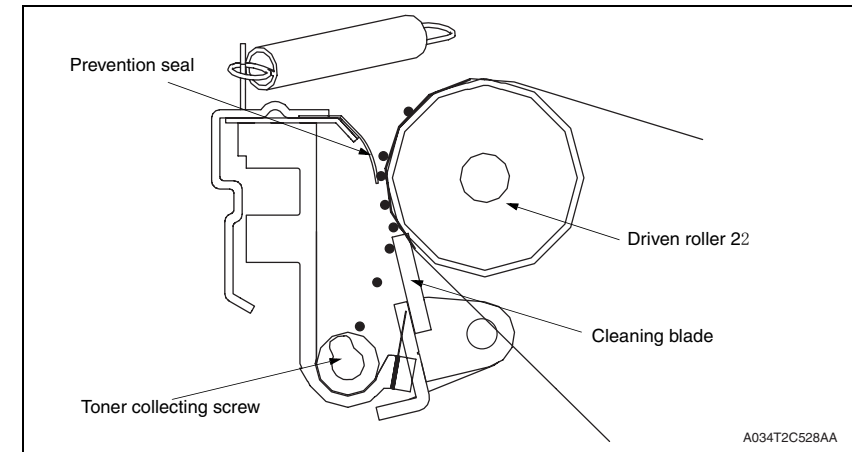
13.3 Operation

13.3.1 1st transfer output control

- The 1st image transfer roller is not equipped with a pressure/retraction mechanism and presses the transfer belt up against the photo conductor drum.
- The 1st transfer voltage is determined during the image stabilization control in consideration of the machine condition, environment, and print mode.

13.3.2 Transfer belt cleaning mechanism

- To scrape residual toner off the surface of the transfer belt, there is a cleaning blade provided.
- The cleaning blade is pressed up against the transfer belt, thereby scraping residual toner off the surface of the transfer belt.
- The toner collecting screw conveys toner scraped off by the cleaning blade into the imaging cartridge.
- The prevention seal is affixed to prevent waste toner from leaking through a gap above the cleaning blade.

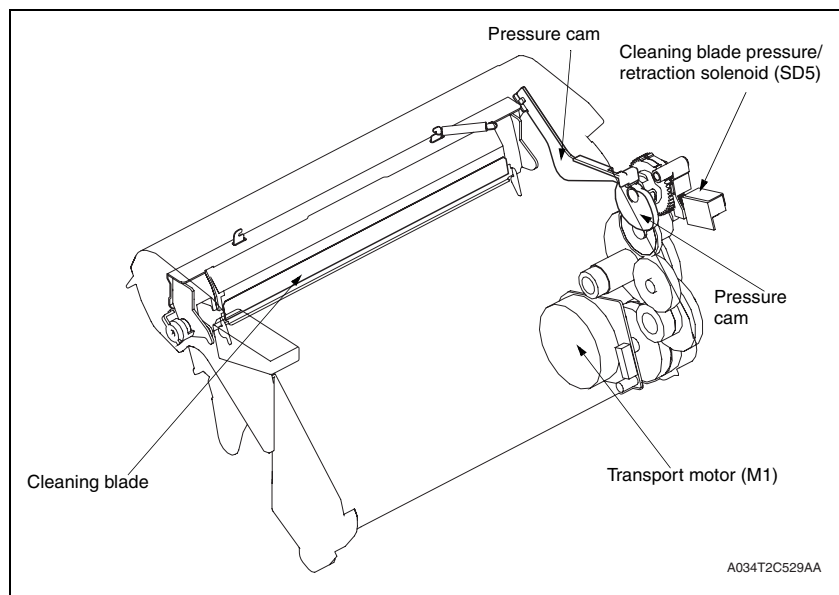


13.3.3 Cleaning blade pressure/retraction mechanism

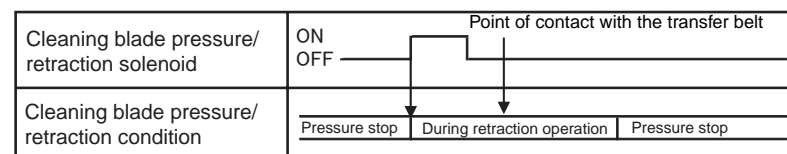
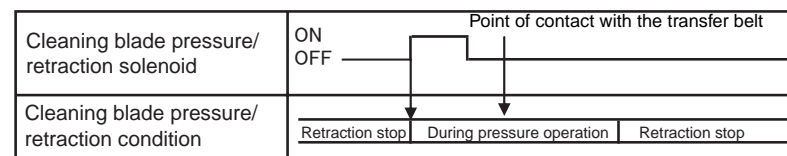
- In color printing, an image is formed on the transfer belt for each color of toner. The cleaning blade is therefore provided with a pressure/retraction mechanism.
- The machine is not, however, provided with a pressure/retraction sensor. Instead, the IDC sensor detects a sample image on the transfer belt to control the pressure/retraction operation.
- In monochrome printing, no retraction sequence is carried out.
- The cleaning blade is normally in pressed contact with the transfer belt.

A. Pressure/retraction operation

- The cleaning blade pressure/retraction operations are performed by the Transport motor (M1), Cleaning blade pressure/retraction solenoid (SD5), pressure cam, and the lever.
- When the Cleaning blade pressure/retraction solenoid (SD5) is energized, drive from the Transport motor (M1) is transmitted to the pressure cam.



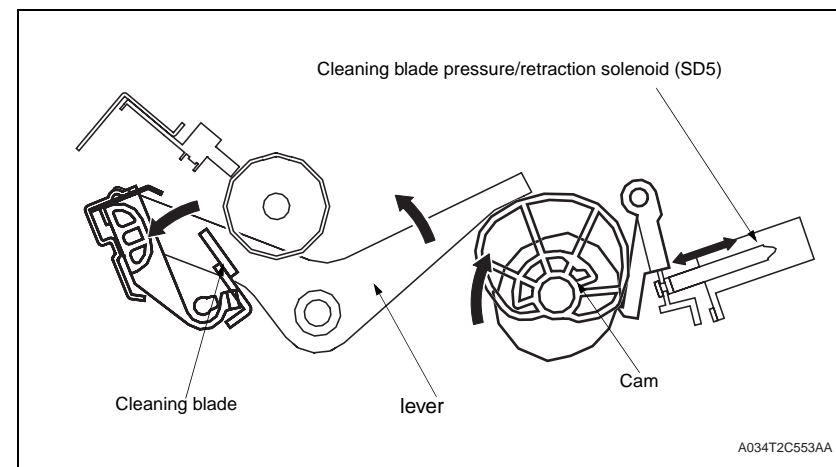
B. Operation timing



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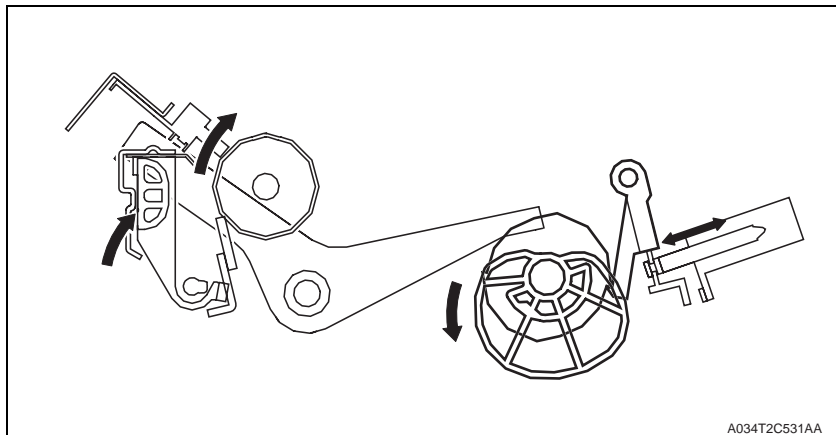
C. Retraction sequence

1. Drive from the Transport motor (M1) is transmitted to the drive gear.
2. Rotation of the drive gear is transmitted to the pressure cam.
3. When the Cleaning blade pressure/retraction solenoid (SD5) is energized, the half-moon-shaped pressure cam rotates a half turn to push the lever forward.
4. When the lever is pushed forward, the cleaning blade is retracted.
5. When the cleaning blade is retracted, it results in the cleaning blade being retracted from the transfer belt.

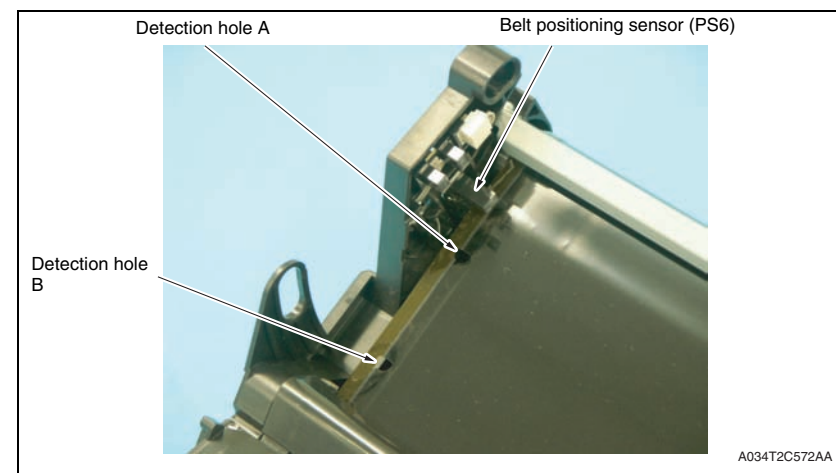


D. Pressure sequence

1. When the Cleaning blade pressure/retraction solenoid (SD5) is energized in the condition, in which the cleaning blade is retracted from the transfer belt, the pressure cam rotates a half turn. This pushes the lever backward.
2. When the lever is pushed backward, the cleaning blade is returned. Then, the cleaning blade is pressed against the transfer belt.

**13.3.4 Belt Positioning Sensor**

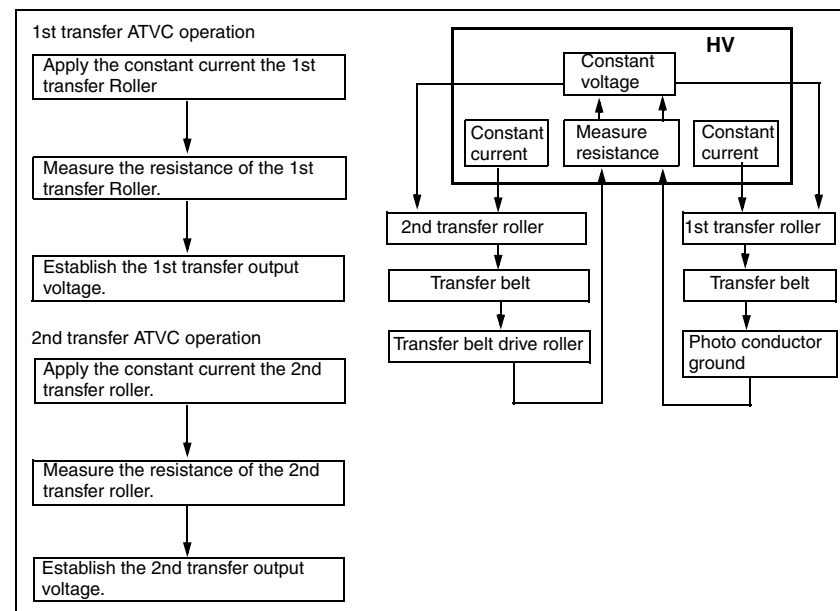
- When development takes place in this machine, the image of each color of toner is formed on the surface of the transfer belt. The leading edge of the image of each color of toner must therefore be aligned correctly with each other on the surface of the transfer belt.
- The position of the transfer belt is detected when the Belt positioning sensor (PS6) detects detection holes provided in the transfer belt.
- There are two detection holes provided in the transfer belt. The image write start position is varied according to the media size. For a media size of A4 or smaller, the image write start position is aligned with detection hole A. For a Media size greater than A4, detection hole B serves as the reference for the image write start position.



13.3.5 ATVC (Auto transfer voltage control)

- The ATVC, or Auto transfer voltage control, is for optimizing the transfer output. A constant current is made to flow through each of the transfer rollers. From the voltage thereby detected, the resistance of each of the 1st transfer roller, 2nd transfer roller, and transfer belt is measured. The ATVC then automatically adjusts the appropriate image transfer output voltage to be applied to the 1st transfer roller and the 2nd transfer roller during the print cycle.
- The 1st transfer ATVC operation is performed mainly through the image stabilization control.
- The 2nd transfer ATVC operation is performed when, for example, environmental conditions change during a print cycle.

A. Overview of ATVC operation



B. 1st transfer ATVC operation

1. The data on the 1st transfer constant current for each color of toner output from the High voltage unit (HV) is fed back to the High voltage unit via the 1st transfer roller, transfer belt, and the photo conductor ground. The resistance of the transfer belt is thereby measured.
2. Based on the measured resistance value, the optimum 1st transfer voltage is established.

C. 2nd transfer ATVC operation

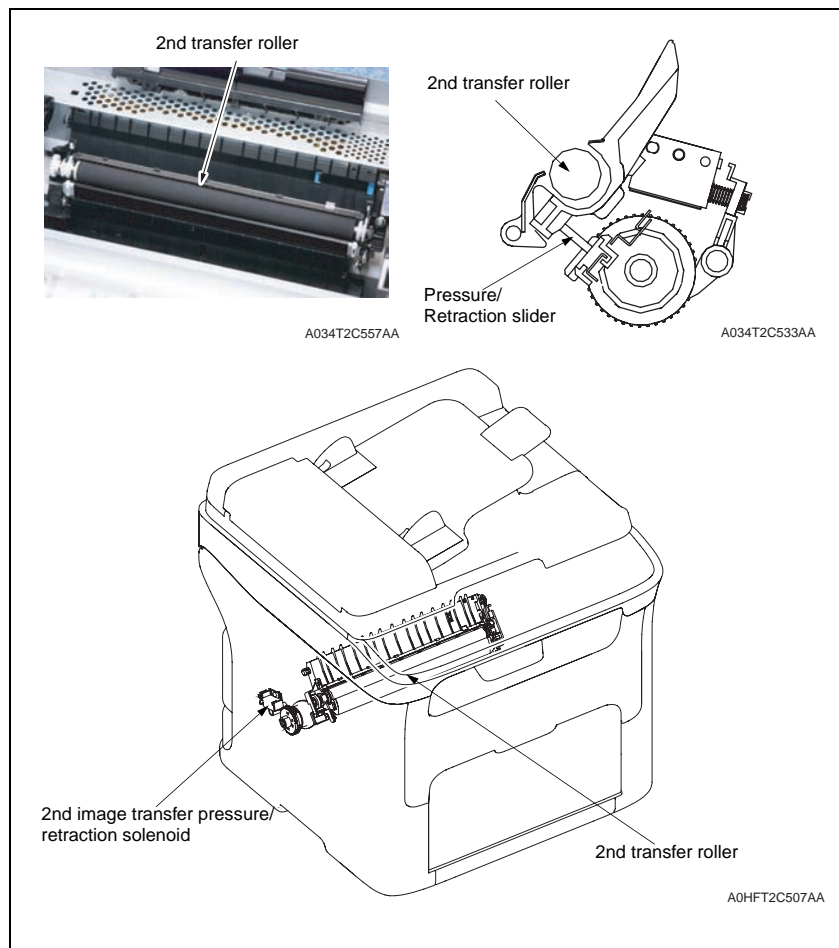
1. The data on the 2nd transfer constant current output from the High voltage unit (HV) is fed back to the High voltage unit via the 2nd transfer roller, transfer belt, and the transfer belt drive roller. The resistance of the transfer belt is thereby measured.
2. Based on the measured resistance value and inconsideration of the environmental conditions and print color, the optimum 2nd transfer voltage is established.

13.3.6 Image stabilization control item

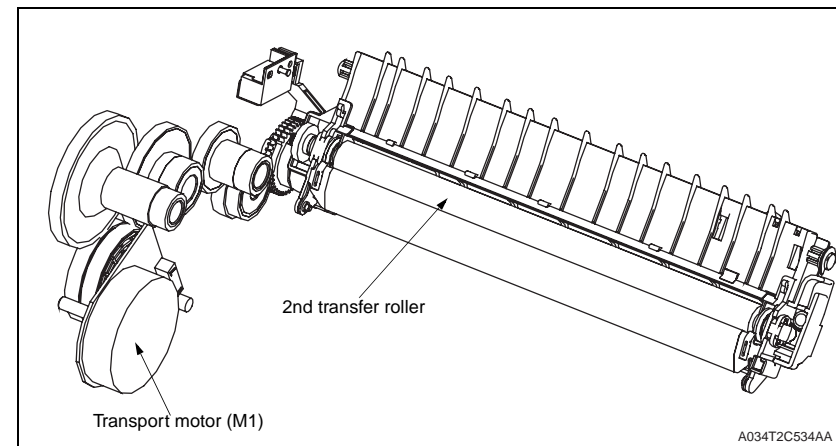
- IDC sensor LED intensity control
- Transfer belt surface correction control
- Control of the maximum amount of toner sticking
- Laser intensity adjustment control
- γ correction control

14. 2nd transfer section/ media separation

14.1 Composition



14.2 Drive



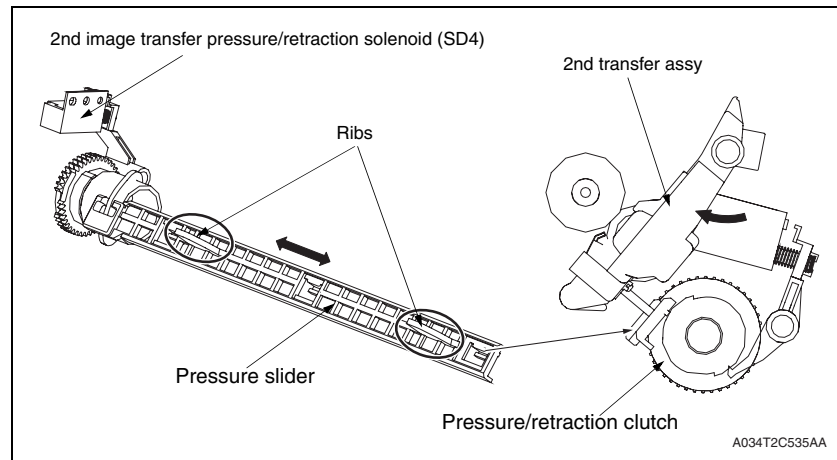
14.3 Operation

14.3.1 2nd transfer roller pressure/retraction control

- In color printing, the toner image of each color of toner is transferred to the transfer belt (thus a total of four times to cover the four colors of toner). Pressure/retraction control with respect to the transfer belt is therefore provided for the 2nd transfer roller.
- In the standby state, the 2nd transfer roller is in a position retracted from the transfer belt.
- The pressure/retraction operation is performed by the Transport motor (M1), 2nd image transfer pressure/retraction solenoid (SD4), and the pressure/retraction clutch.
- When the 2nd image transfer pressure/retraction solenoid (SD4) is energized, drive from the Transport motor (M1) is transmitted to the pressure/retraction clutch.

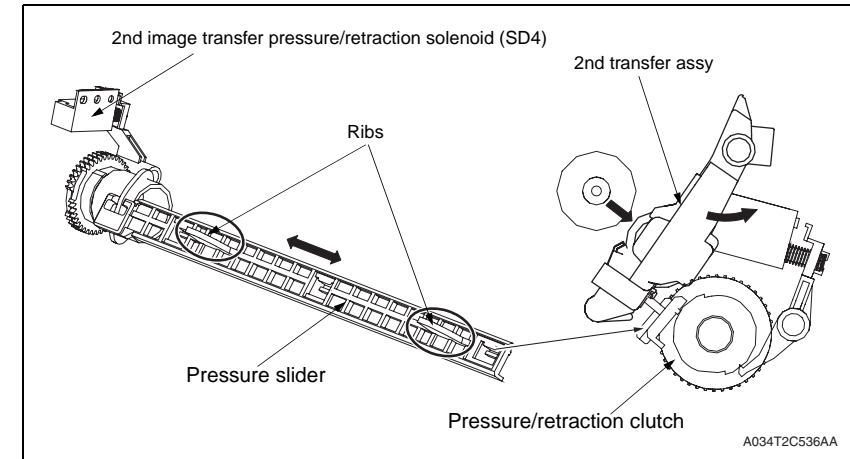
A. Pressure sequence

1. Drive from the Transport motor (M1) is transmitted to the drive gear.
2. Rotation of the drive gear is transmitted to the Pressure/retraction clutch.
3. When the 2nd image transfer pressure/retraction solenoid (SD4) is energized, the Pressure/retraction clutch rotates a half turn. This moves the Pressure slider.
4. When the Pressure slider is moved, ribs on the Pressure slider push up the 2nd transfer assy.
5. When the 2nd transfer assy is pushed up, the 2nd transfer roller is pressed up against the transfer belt.



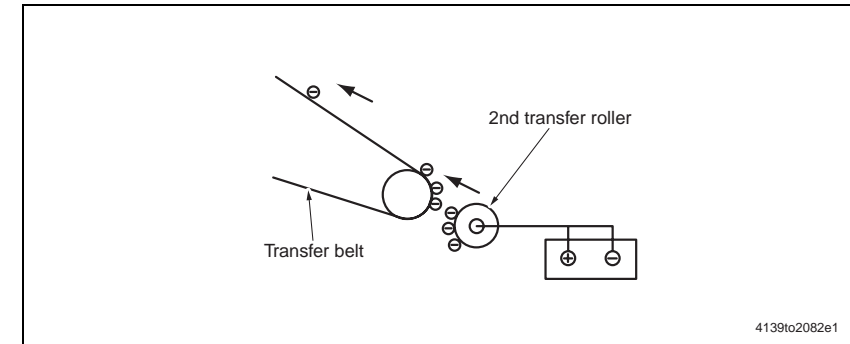
(1) Retraction sequence

1. When the 2nd image transfer pressure/retraction solenoid (SD4) is energized in the condition in which the 2nd transfer roller is pressed against the transfer belt, the Pressure/retraction clutch rotates a half turn. This moves the Pressure slider.
2. When the Pressure slider is moved, the 2nd transfer assy, which has been pushed up by the ribs on the Pressure slider, lowers.
3. When the 2nd transfer assy lowers, it allows the 2nd transfer roller to be retracted from the transfer belt.



14.3.2 2nd transfer roller cleaning

- DC positive and negative transfer bias voltages are alternately applied to the 2nd transfer roller. This allows toner residue on the surface of the 2nd transfer roller to be transferred back to the transfer belt, thus cleaning the 2nd transfer roller.
- The toner transferred back to the transfer belt is collected by the cleaning blade.

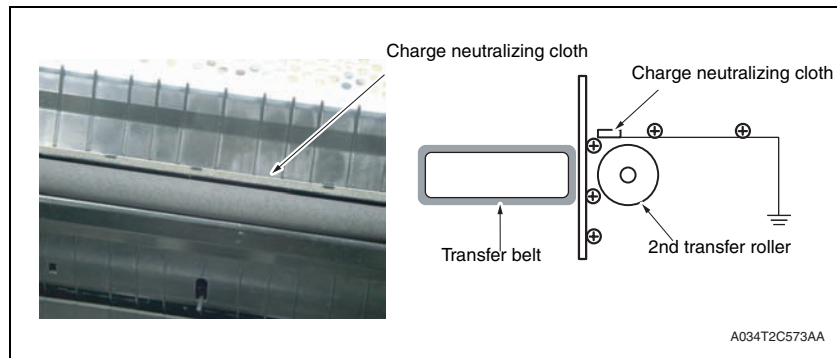


A. Operation timing

- The machine performs a cleaning sequence if it detects a sheet of paper having a length shorter than the length of the specified paper type.
- The cleaning sequence is also carried out during a resetting sequence following a paper misfeed and the opening of the door during a print cycle.

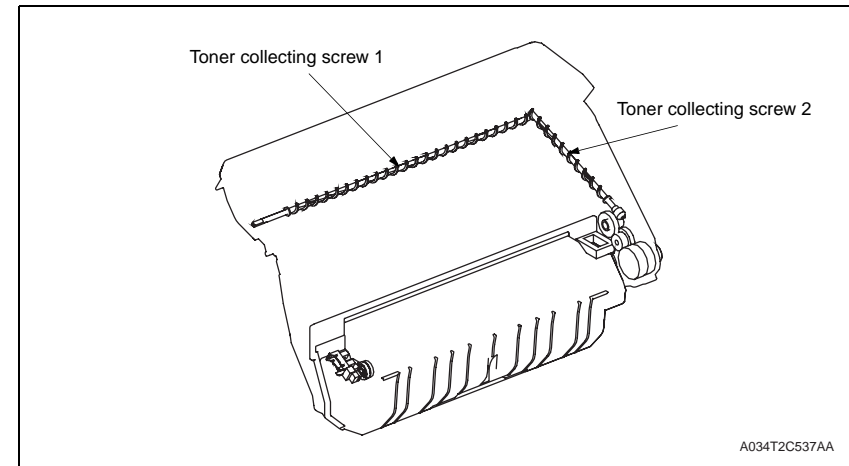
14.3.3 Neutralization and separation of media

- To neutralize the media that has undergone the 2nd transfer process, a Charge neutralizing cloth is provided for the guide plate after the 2nd transfer roller.

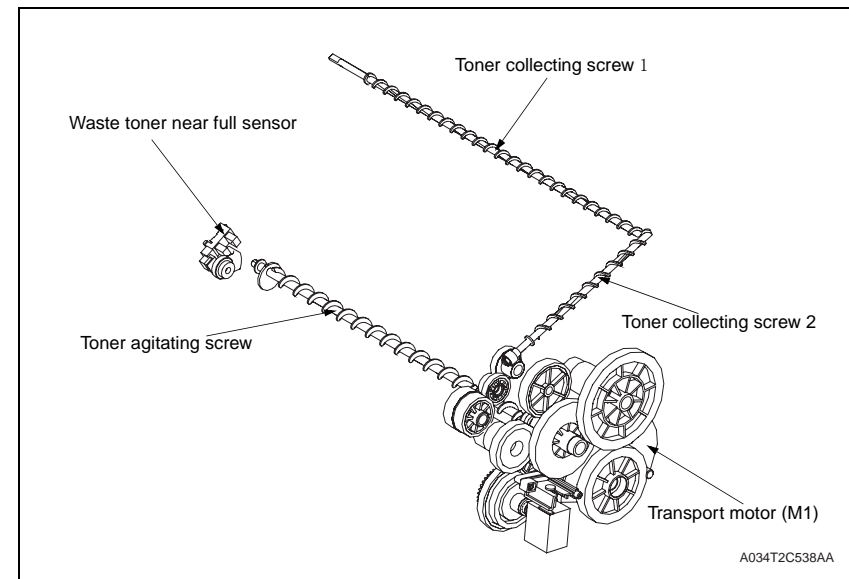


15. Toner collecting section

15.1 Composition



15.2 Drive



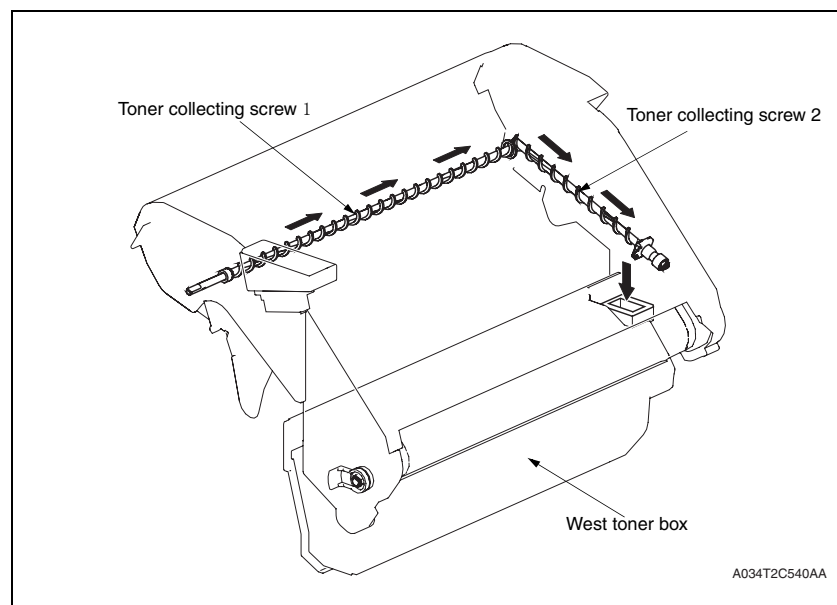
15.3 Operation

15.3.1 Toner collecting mechanism

- Waste toner scraped off by the cleaning blade of the transfer belt and that scraped off by the cleaning blade of the photo conductor are conveyed by each of the toner collecting screws into the drum cartridge.

A. Transfer belt

- Waste toner scraped off by the cleaning blade is collected by the toner collecting screws 1/2 for transfer belt.
- The waste toner collected by the toner collecting screw is conveyed to the waste toner box by way of the toner collecting screw 2.

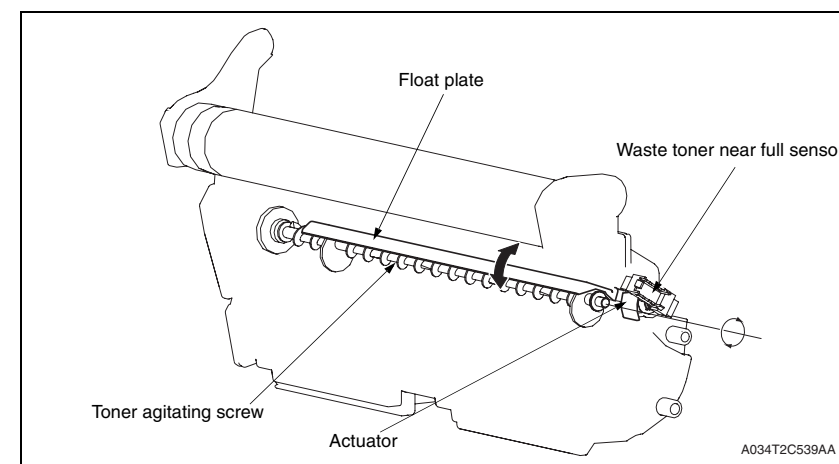


15.3.2 Waste toner near full detection system

- Waste toner near full and waste toner full conditions are detected through the control performed using the Waste toner near full sensor, toner agitating screw, and the internal counter.

A. Waste toner near full condition detection control

- Rotation of the toner agitating screw causes the actuator to move up and down via the float plate, so that the Waste toner near full sensor detects "H" and "L" signals alternately.
- When the amount of waste toner in the waste toner box exceeds a predetermined level, the toner agitating screw no longer rotates. This results in the Waste toner near full sensor detecting either the "H" or "L" signal only.
- The machine determines that the waste toner box is in the waste toner near full condition.

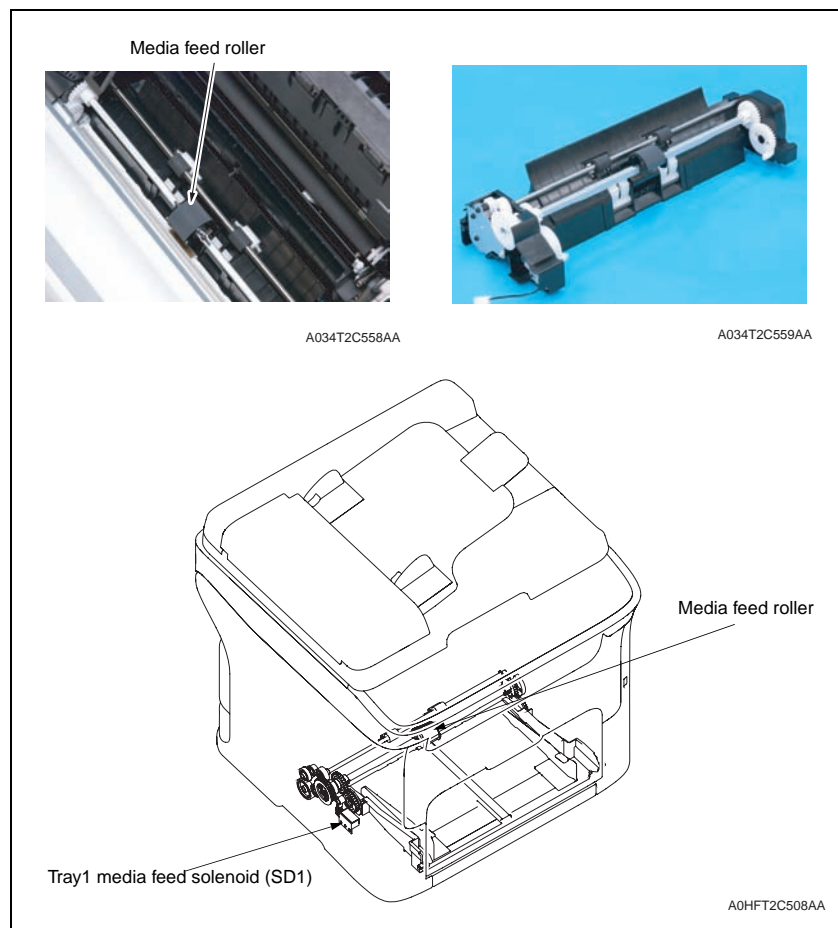


B. Waste toner full detection control

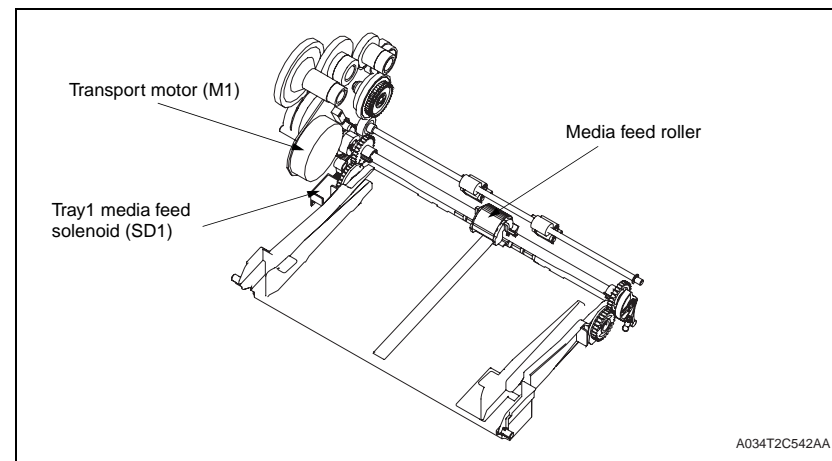
- The machine determines that there is a waste toner full condition when 200 images are reached after a waste toner near full condition has been detected.
- The counter is automatically cleared to reset the waste toner full condition when the imaging cartridge is replaced with a new one.

16. Media feed section

16.1 Composition



16.2 Drive

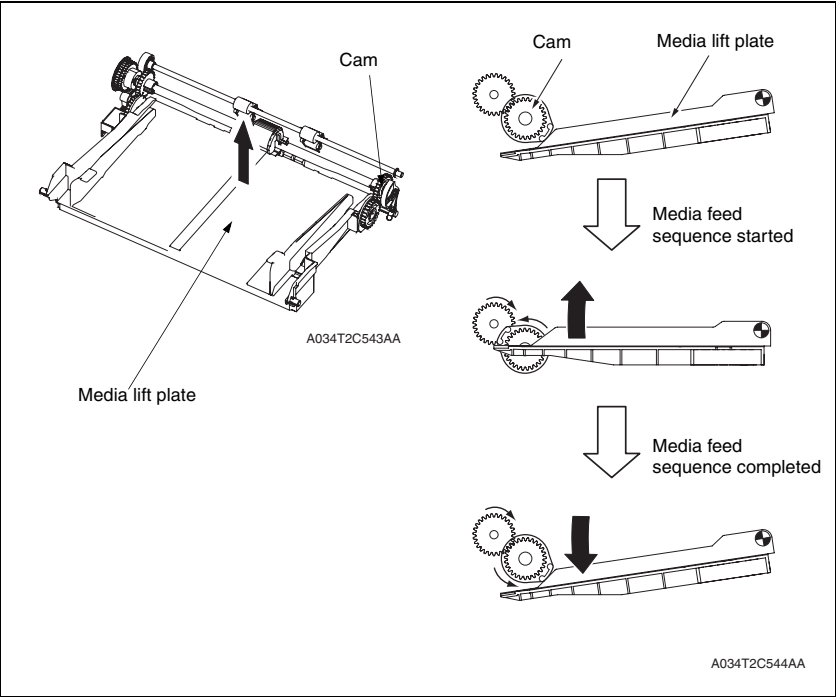


16.3 Operation

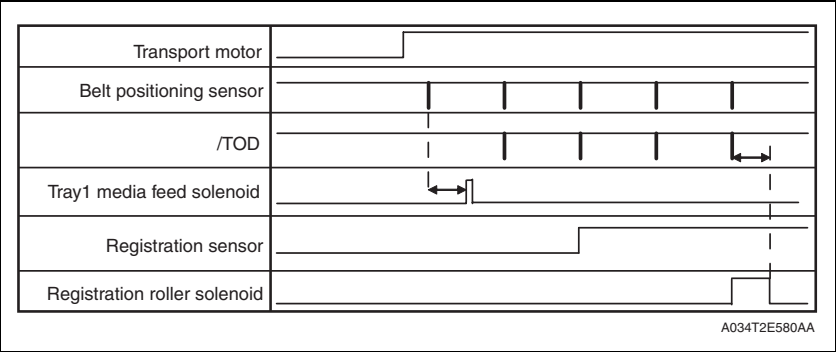
16.3.1 Up/down control

A. Up/down operation

- When the Tray1 Paper pick-up solenoid (SD1) is energized, drive from the Main motor (M1) is transmitted to the Pick-up roller via the Paper pick-up clutch. The Pick-up roller is thereby rotated.
- At the same time, the Lift cam is rotated, which raises the media lift plate. This allows the media to be taken up and fed in by the Pick-up roller.



B. Operation timing



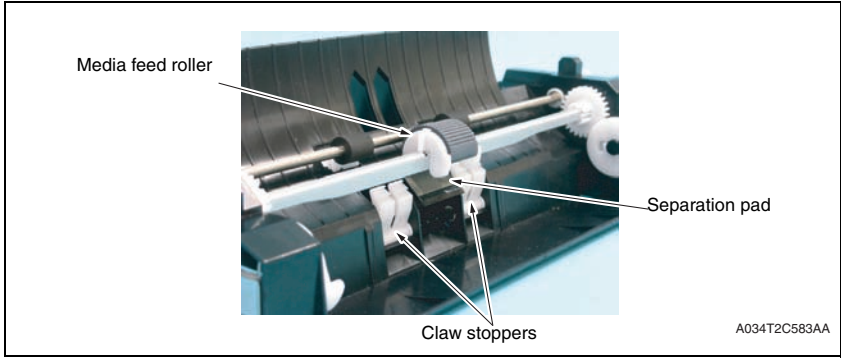
16.3.2 Paper feed control

A. Pick-up/separation control

- When the Tray 1 media feed solenoid (SD1) is energized, drive from the Transport motor (M1) is transmitted to the pick-up roller via the paper pick-up clutch and the pick-up roller is rotated.

16.3.3 Double feed prevention mechanism

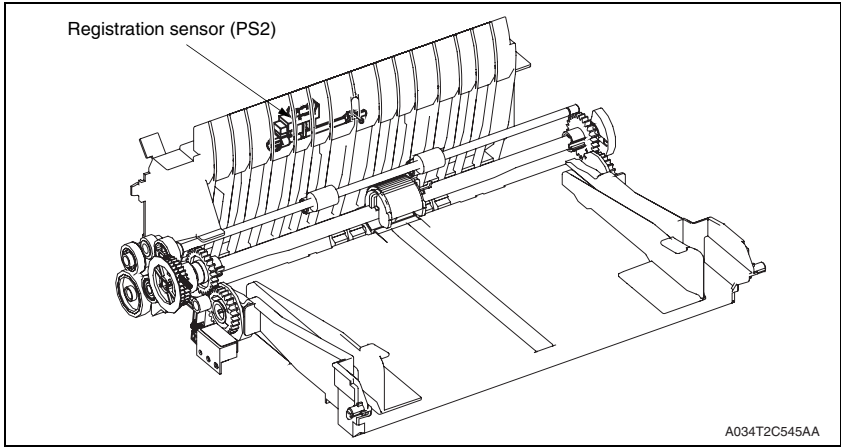
- The fixed separation pad system plus the claw stoppers are used for media separation. This ensures that only the first sheet of media is taken up and fed in.



16.3.4 Remaining media detection control

A. Media empty detection

- The machine is not provided with any paper empty sensor.
- A media empty/misfeed condition is detected if the Registration sensor is not activated after the lapse of a predetermined period of time after a media feed sequence is started.



16.3.5 Media feed retry function

- To reduce the number of media misfeeds detected due to failure to take up and feed in media properly during color printing, another media feed sequence is carried out if the Registration sensor (PS1) is not unblocked and blocked within a predetermined period of time.
- The media feed retry sequence takes place only once.
- If the Registration sensor is not blocked and unblocked even after the second media feed sequence, the machine detects a media empty/misfeed condition.

17. Fusing section

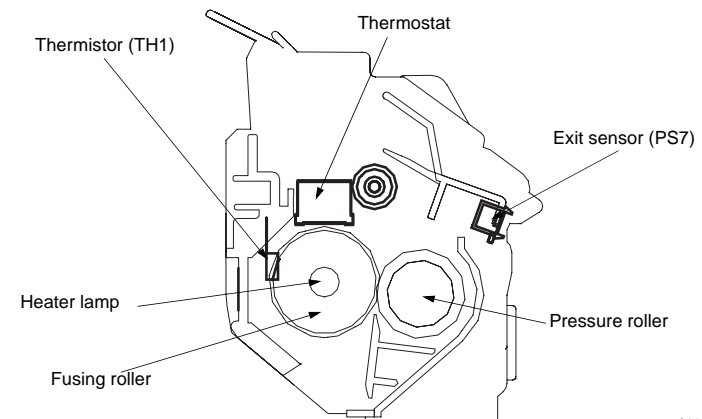
17.1 Composition



A034T2C575AA

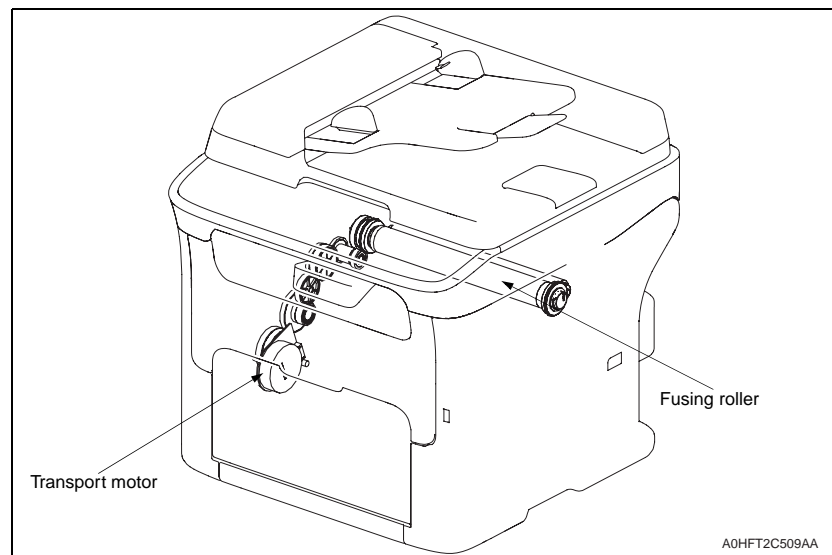


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A034T2C551AA

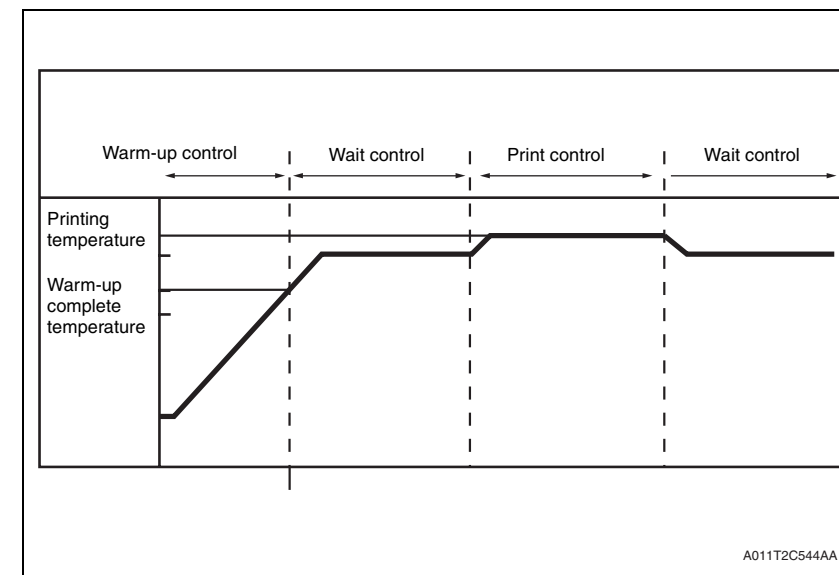
17.2 Drive



17.3 Operation

17.3.1 Fusing temperature control

- To fuse the toner image on the media (image yet to be permanently fixed) properly into the media, the heater lamps are turned ON and OFF as necessary to bring the fusing temperature to an appropriate level.
- Thermistors are used to detect the surface temperature of the Fusing roller. The heater lamps are then turned ON and OFF as necessary to achieve the set temperature.



A. Warm-up control

Control is provided until the Fusing roller reaches the predetermined level.

B. Control start timing

- The power switch is turned ON.
- A malfunction or media misfeed is reset.
- The main body leaves the power save mode.
- A door is closed.

C. Control termination timing

- The Fusing roller reaches a predetermined temperature.
- A malfunction or media misfeed is reset.
- A door is opened.

D. Control start decision

- Either of the following two control start decisions is made according to the temperature detected by the temperature/humidity sensor. The fusing temperature during the print cycle varies depending on the type of the start control carried out, either low temperature start control or ordinary start control.

| | |
|-------------------------------|---|
| Control start decision | Environment upon start |
| Low temperature start control | The temperature/humidity sensor detects a temperature lower than the predetermined value. |
| Ordinary start control | The temperature/humidity sensor detects a temperature equivalent to, or higher than, the predetermined value. |

17.3.2 Wait control

- Control is provided to ensure that the temperatures at different parts of the fusing unit reach a constant level during the wait state.

A. Control start timing

- At the end of the warm-up control
- At the end of the post-print cycle control (print start control)

B. Control termination timing

- The front cover is opened and closed.
- A malfunction or media misfeed occurs.

17.3.3 Print control

- To ensure a good fixing level and light transmission performance of the OHP transparencies, the fusing speed and fusing roller temperature are controlled.

A. Control start timing

- A print request is received.

B. Control termination timing

- A malfunction or media misfeed occurs.

C. Print control temperatures

- The fusing roller temperature is set according to the type of media, main body interior temperature (as measured by the temperature/humidity sensor), and warm-up start decision.
- For types of media other than plain paper, the fusing speed is controlled at the 1/2 speed.

D. Print control temperature adjustments

- The temperature during print control is adjusted using the menu available from the control panel. The temperature can, however, be decreased only.
- Adjustment steps are 0°C, -5°C, and -10°C.

17.3.4 Protection against abnormally high temperature

- The machine provides protection at three different stages to prevent abnormally high temperature of the Fusing unit.

A. Soft protection

- If the Thermistor (TH1) detects a temperature exceeding a predetermined value, the malfunction code representing abnormally high temperature is displayed. At this time, the power supply line is shut down.
- If the temperature of the fusing roller does not reach a predetermined value within a predetermined period of time after the start of the warm-up cycle, the power supply line is shut down.

B. Hard protection

- If the CPU overruns and the output level of the CPU of the Mechanical control board becomes a HIGH or LOW level, and not a pulse output, and a predetermined temperature or higher is detected, a circuit within the Mechanical control board turns OFF the relay to shut down each power supply line.

C. Thermostat protection

- If detection of abnormally high temperatures by soft protect or hard protect cannot be made due to a faulty Thermistor (TH), the thermostat operates at a predetermined temperature to shut down the power supply line.
- If detection of abnormally high temperatures by soft protect or hard protect cannot be made due to a faulty Thermistor (TH), the thermostat operates at a predetermined temperature to shut down the power supply line.

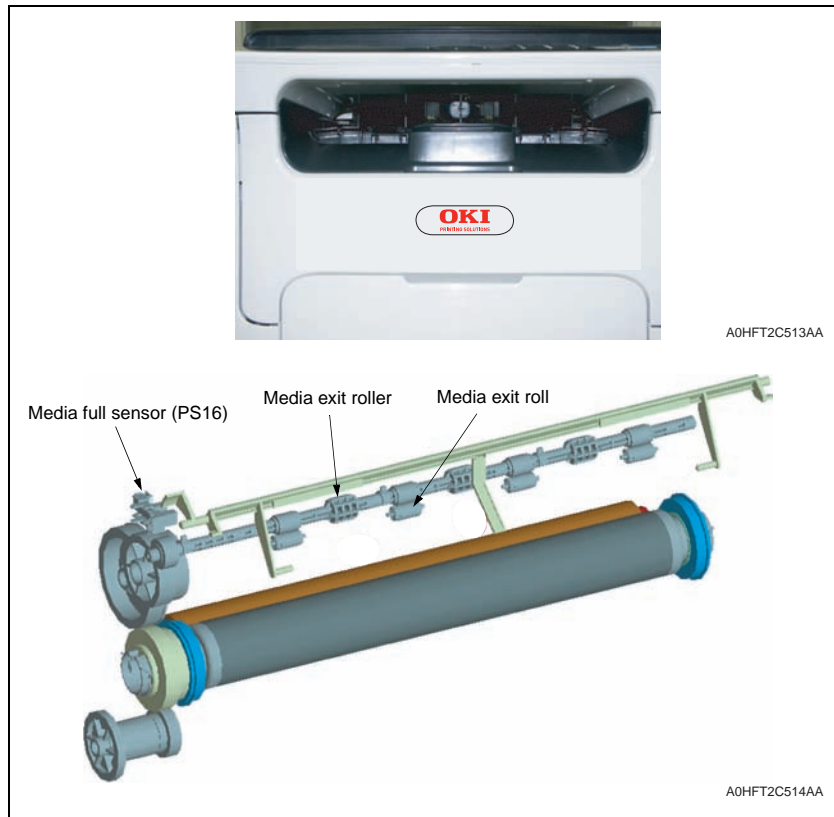
17.3.5 PPM control

- PPM control is provided to prevent the temperature on edges of the heating roller from increasing during a multi-print cycle using plain media of a small size.
- The distance between sheets of media is widened according to the number of printed pages set to be produced and the media length. This evens out the temperature of the heating roller and thus stabilizes fusing performance of the printed toner image.
- The PPM control is provided at 20 ppm for a multi-print cycle of producing 20 pages. The number of printed pages per minute is established as detailed below for each media size for the 21st and subsequent pages.
- No PPM control is provided for a multi-print cycle of color printing, as it is 1/4 of the monochrome printing.

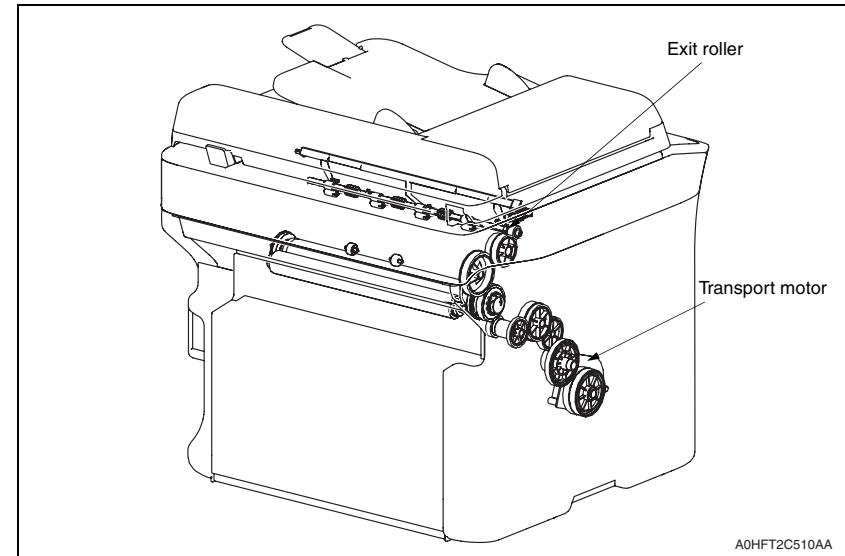
| Media conditions | PPM |
|--|-------|
| A5, invoice | 14ppm |
| Media having a narrower width and longer length than above | 8ppm |

18. Media exit section

18.1 Composition



18.2 Drive



18.3 Operation

18.3.1 Conveyance control

A. Reverse/paper exit switch control

- The exit roller is driven by the transport motor.
- During 1-sided printing, the exit roller rotates in the forward direction and feeds the media transported from the fusing section out onto the media exit tray.
- If the machine is mounted with an optional Duplex unit, the exit roller is driven by the transport motor of the Duplex unit.
- The exit roller is rotated in the forward or backward direction by the transport motor of the Duplex unit to convey the media into the Duplex unit.

18.3.2 Media exit full detection control

- The exit sensor detects a full condition of the media exit tray.
- If the exit sensor is not blocked within a predetermined period of time after it has been unblocked, the machine detects a media exit full condition and displays the corresponding message on the control panel.

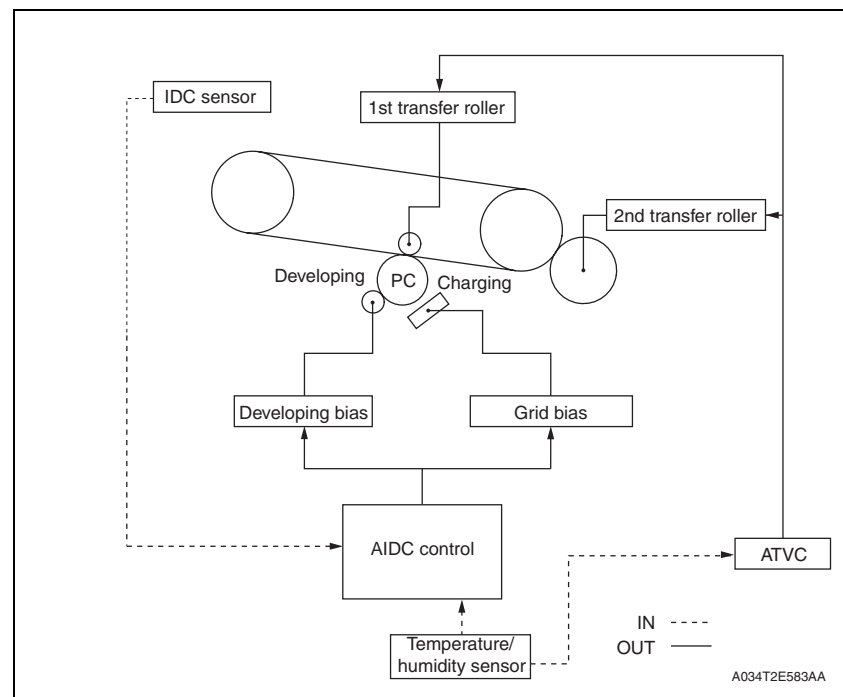
19. Image stabilization control

19.1 Overview

- To ensure that a stabilized output image is produced at all times, the following image stabilization controls are provided.

| Purpose | Control | Detection |
|--|---|---|
| To ensure stabilized transfer output | ATVC * Described in the section dealing with the transfer Section | Temperature/ humidity sensor (TEM/HUMS) |
| To ensure stabilized image density; to ensure good tone reproduction | IDC control <ul style="list-style-type: none"> Leak detection control IDC intensity control Transfer belt surface correction control Control of the maximum amount of toner sticking Laser intensity adjustment control γ correction control | IDC sensor (IDC) Temperature/ humidity sensor (TEM/HUMS) |

* An explanation is given of the control for each section.



19.2 Operation

19.2.1 Leak detection control

- For the clearance between the photo conductor and developing roller, an optimum developing bias voltage is established that does not result in a leak image or uneven density.

19.2.2 IDC sensor LED intensity control

- The following adjustment is made to correct any changes in characteristics occurring due to change with time and contamination of the IDC sensor (IDC): the intensity of the LED is adjusted for the surface of the transfer belt on which no toner sticks, so that the output value of the IDC sensor (IDC) becomes constant.

19.2.3 Transfer belt surface correction control

- The reflectance of the Image transfer belt is measured using the ADIC sensor (IDC). One measurement is taken for one complete turn of the Image transfer belt.
- The measured value is corrected during the laser intensity adjustment control and γ correction control.

19.2.4 Control of the maximum amount of toner sticking

- The developing bias setting value is adjusted to keep constant the amount of toner sticking to the surface of the photo conductor with reference to the 100% solid image.

19.2.5 Laser intensity adjustment control

- Characteristics of the photo conductor, developing, and charging change as affected by changes with time and in environment. The intensity of the laser light is adjusted so that fine lines and gradations of a predetermined level are reproduced at all times.

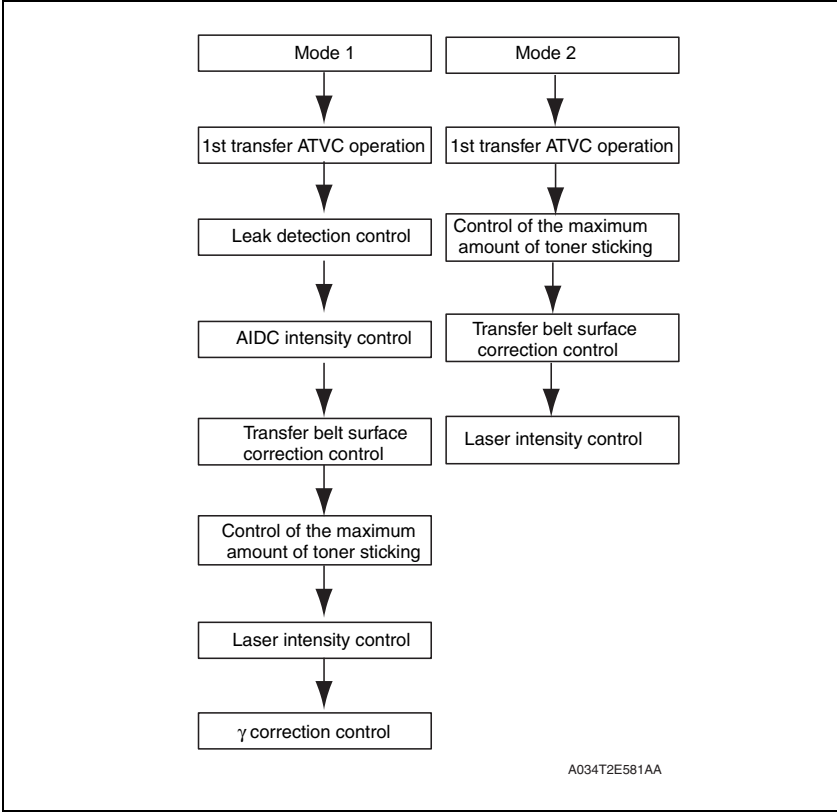
19.2.6 γ correction control

- A gradation pattern is produced on the surface of the Image transfer belt. The IDC sensor (IDC) measures the density of the pattern and sends the measured result to the controller for gradation adjustment.

19.3 Operation timing

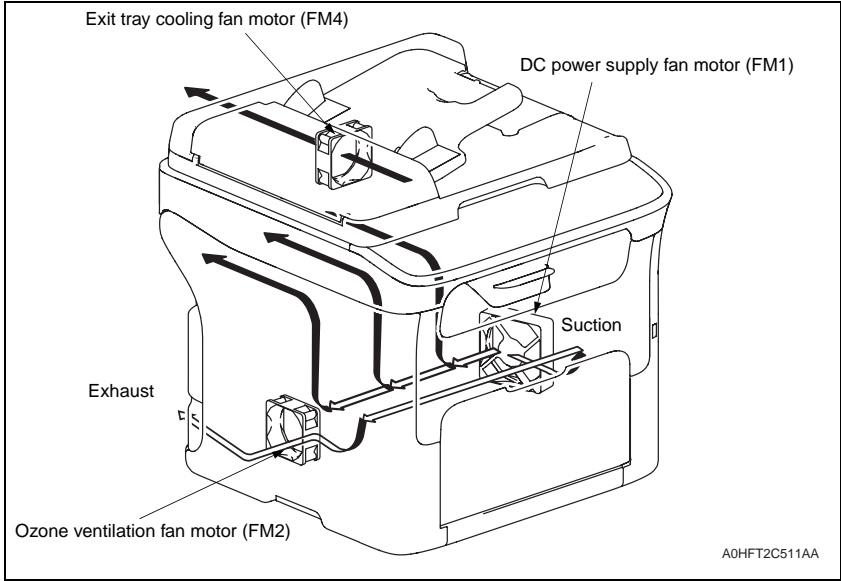
| Mode | Operation timing |
|--------|--|
| Mode 1 | <ul style="list-style-type: none">• The environment in which the power switch is turned ON is different from the environment the machine was in when the power switch was turned OFF last.• The environment in which the Energy saver mode is canceled is different from the environment the machine was in when it entered the Energy saver mode last.• The power switch is turned OFF and ON or the Energy saver mode is canceled after a predetermined number of printed pages have been produced.• A new drum cartridge or toner cartridge is detected. |
| Mode 2 | <ul style="list-style-type: none">• The power switch is turned OFF and ON or the Energy saver mode is canceled after a predetermined number of printed pages have been produced. |

19.4 Operation flow



20. Fan control

20.1 Composition



20.2 Operation

20.2.1 Function

| Motor name | Function (purpose) |
|-----------------------------------|---|
| DC power supply fan motor (FM1) | To discharge heat stagnant inside the machine to the outside to prevent the temperature of the DC power supply from rising. |
| Ozone ventilation fan motor (FM2) | To recover toner powder in the imaging cartridge. To draw ozone produced in the imaging cartridge to the outside. |
| Exit tray cooling fan motor (FM4) | To prevent the temperature on the exit tray from increasing. |

20.2.2 Control conditions

| Motor name | Condition | Control conditions |
|-----------------------------------|-----------------|---|
| DC power supply fan motor (FM1) | ON (high speed) | <ul style="list-style-type: none"> For a predetermined period of time after the power is turned ON For a predetermined period of time after the end of the Energy save mode At the start of a print cycle (full-speed rotation after a predetermined period of time of half-speed rotation) At the start of pre-drive |
| | ON (low speed) | <ul style="list-style-type: none"> During standby At the end of a print cycle (half-speed rotation after a predetermined period of time of full-speed rotation) |
| | OFF | <ul style="list-style-type: none"> During the Energy save mode When a malfunction occurs During firmware upgrading |
| Ozone ventilation fan motor (FM2) | ON | During transport motor drive |
| | OFF | Other than above |
| Exit tray cooling fan motor (FM4) | ON (high speed) | <ul style="list-style-type: none"> For a predetermined period of time after the power is turned ON For a predetermined period of time after the end of the Energy save mode At the start of a print cycle (full-speed rotation after a predetermined period of time of half-speed rotation) At the start of pre-drive |
| | ON (low speed) | <ul style="list-style-type: none"> During standby At the end of a print cycle (half-speed rotation after a predetermined period of time of full-speed rotation) |
| | OFF | <ul style="list-style-type: none"> During the Energy save mode When a malfunction occurs During firmware upgrading |

Auto Document Feeder Unit

THEORY OF OPERATION

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Auto Document Feeder Unit

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4.2.1 Document transport mechanism 59

4.2.2 Document exit mechanism 59

OUTLINE

1. Product Specifications

A. Type

| | | |
|--------------------|--|---------|
| Name | Automatic Document Feeder | |
| Installation | Inserted at upper-rear side of main body | |
| Document alignment | Center | |
| Document loading | Face up | |
| Scan speed | Color (600 x 300 dpi) | 3.0 opm |
| | Monochrome (600 x 300 dpi) | 10 opm |
| | Monochrome (300 x 300 dpi) | 20 opm |

OPM: Originals per minutes

B. Functions

| | |
|-------|-----------------------------|
| Modes | 1-Sided Mode / 2-Sided Mode |
|-------|-----------------------------|

C. Paper

| | | |
|--------------------------|---|-----------------|
| Type of document | 1-Sided mode: 50 g/m ² to 128 g/m ² | |
| | 2-Sided mode: 50 g/m ² to 128 g/m ² | |
| Detectable document size | A5S, B5S, A4S, LegalS (8.5 x 14), LetterS (8.5 x 11), Invoice (8.5 x 5.5) | |
| | Width | 140 to 216 mm |
| | Length | 148 to 355.6 mm |
| Capacity | 35 sheets (80 g/m ²) or load height of 6 mm or less. | |

D. Maintenance

| | |
|--------------------|---|
| Machine durability | 50,000 originals feed or 5 years, whichever comes first |
|--------------------|---|

E. Paper feed prohibited originals

- The following types of originals should not be used.

| Types of document | Possible malfunctions |
|---|---|
| Original that is stapled or clipped. | Feed failure, damage to the original, or drive failure due to clip clogging |
| Pasted originals | Misfeed, broken original, or folded paste-up edges |
| Book original | Feed failure, damage to the original, or drive failure |
| Original weighing less than 35 g/m ² or 210 g/m ² or more | Feed failure |
| Torn original | Feed failure, damaged sheet |
| Highly curled original (15 mm or more) | Original misfeed due to dog-ear or skew |
| OHP transparencies | Feed failure |
| Label Sheet | Feed failure |
| Photographic paper, gloss enamel paper, or other gloss original | Feed failure, damage to the original, or drive failure |
| Offset master | Feed failure |
| Sheets clipped or notched | Damaged sheet |
| Less-than-0.05-mm-thick thin paper | Misfeed |
| More-than-0.15-mm-thick thin paper | Misfeed |

F. Paper feed not guaranteed originals

- If fed, paper feed will be possible to some extent but trouble occurrence will be possible.

| Type of original | Possible trouble |
|--|---|
| Sheets lightly curled (Curled amount: 10 - 15 mm) | Dog-eared, exit failure |
| Heat sensitive paper | Edge folded, exit failure, transport failure |
| Translucent paper | Take-up failure, transport failure |
| Paper immediately after paper exit from the main unit | Take-up failure, transport failure |
| Paper with many punched holes (e.g., loose leaf) limited to vertical feeding | Multi-page feed due to flashes from holes |
| Sheets with 2 to 4 holes | Transport failure |
| Sheets two-folded or Z-folded | Transport failure, image deformation |
| Sheets folded | Image deformation, multi-page feed, take-up failure |

G. Machine specifications

| | |
|--------------------|---|
| Power requirements | DC 24 V (supplied from the main body) |
| | DC 5 V (supplied from the main body) |
| Dimensions | 404 mm (W) x 318 mm (D) x 60.5 mm (H) (without the original tray) |
| Weight | 2.0 kg |

H. Operating

- Conforms to the operating environment of the main body.

NOTE

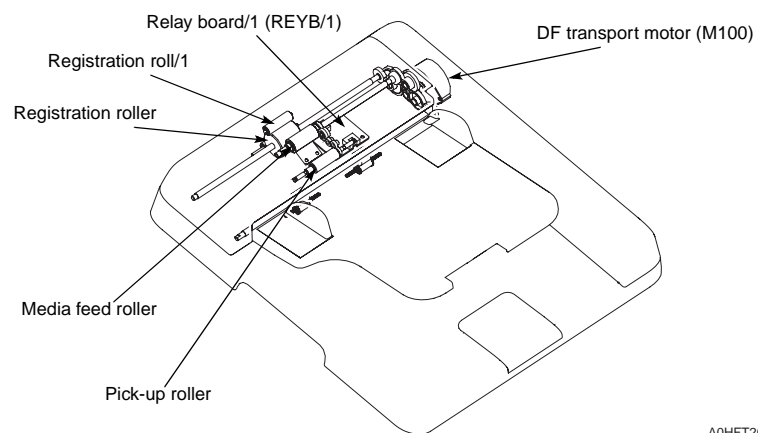
These specifications are subject to change without notice.

COMPOSITION/OPERATION

2. Composition

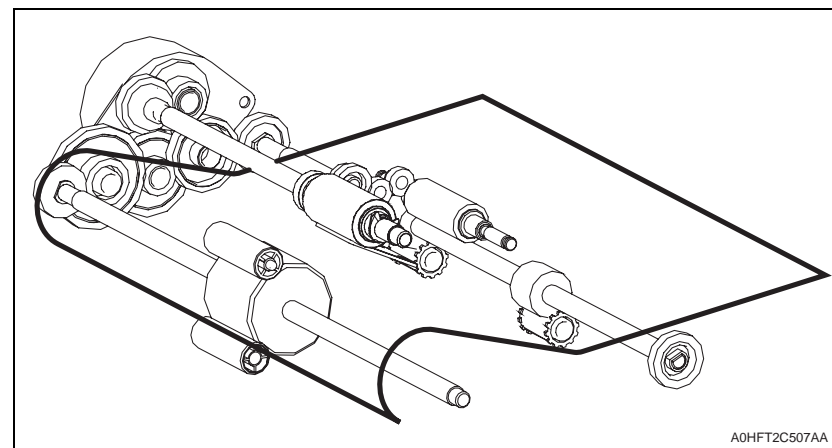


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3. Drive

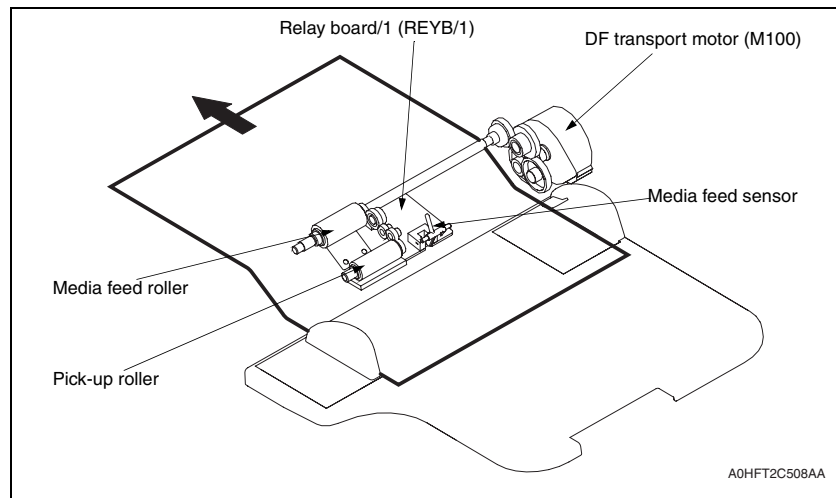


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4. Mechanical operations

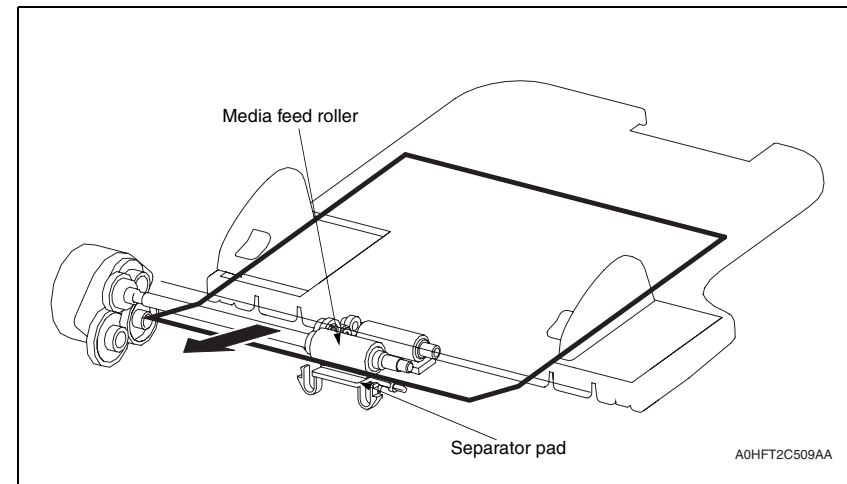
4.1 Document feed mechanism

- The media feed sensor detects a document that has been properly loaded in the document feeder.
- The document stopper establishes the leading edge position of the document loaded in the document feeder. The stopper is lowered in the standby state and raised when the document is taken up and fed in.
- The document stopper is raised and lowered in synchronism with the raising and lowering motion of the pick-up roller.
- The pick-up roller and media feed roller turn to take up and feed the original properly.
- The pick-up roller transports the original up to the media feed roller.
- The DF transport motor drives the pick-up roller and media feed roller through a gear train.



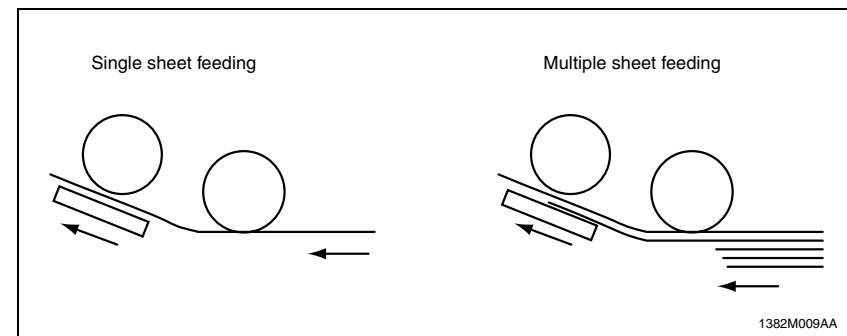
4.1.1 Document separation mechanism

- Double feeding of paper is prevented using coefficient of friction between the media feed roller and separator pad.



Single sheet feeding : The coefficient of friction on the front side of the paper fed between the media feed roller and separator pad is equal to that on the backside of the paper. This allows the media feed roller to transport the paper.

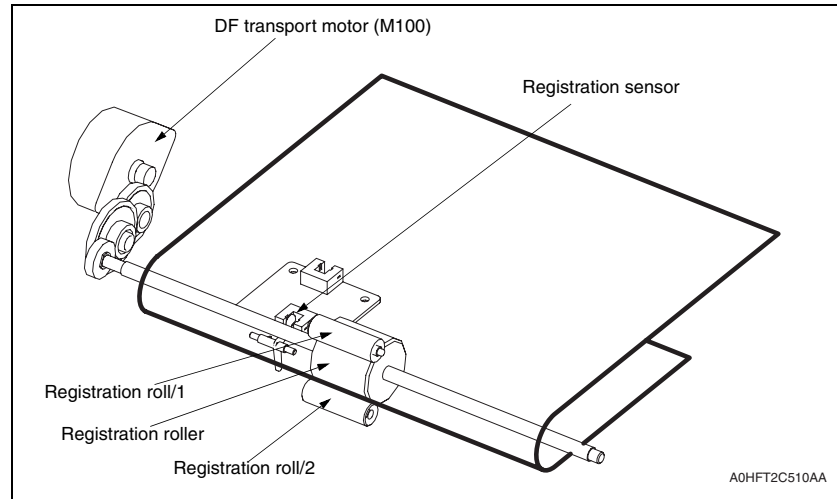
Multiple sheet feeding : The coefficient of friction between the paper and separator pad is greater than that between sheets of paper. This allows only the first sheet of paper to be transported by the media feed roller.



4.2 Document transport/exit mechanism

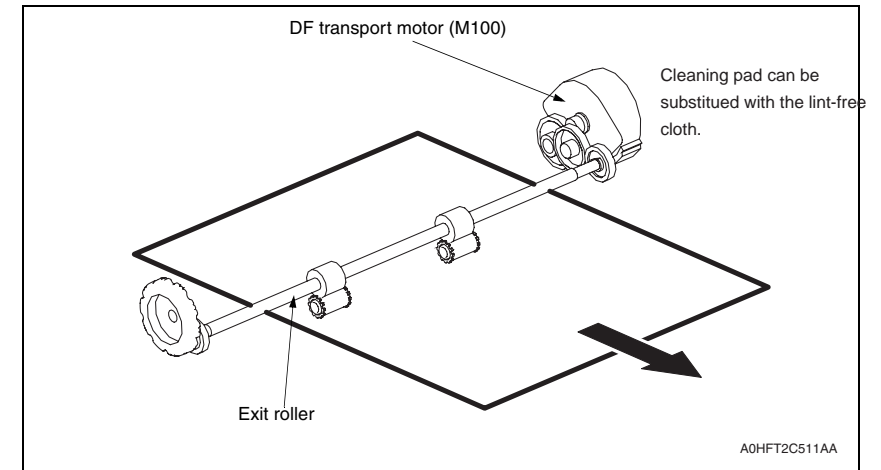
4.2.1 Document transport mechanism

- The registration roller is rotated by the drive from the DF transport motor and transports the original that has been taken up to the document scanning position of the printer.
- The DF transport motor drives the transport roller through a gear train.
- Activation of the registration sensor establishes the document scan start timing.
- eactivation of the registration sensor establishes the document scan end timing and timing to de-energize the DF transport motor.



4.2.2 Document exit mechanism

- The exit roller turns to feed the original out of the document feeder. The original is fed onto the document exit tray.
- The DF transport motor turns the exit roller through a gear train.



MC160n Main body

FIELD SERVICE

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MC160n Main body

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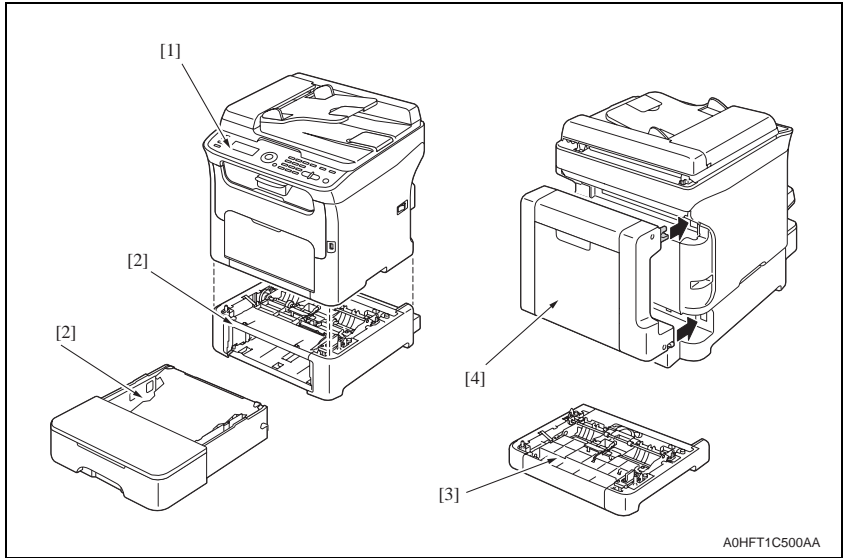
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APPENDIX 202

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OUTLINE

1. System configuration



- [1]

MC160n
- [2]

Lower Feeder Unit (Option)
- [3]

Duplex Option Attachment (Option)
- [4]

Duplex Option (Option)

2. Product specifications

A. Type

| | |
|-------------------------|--|
| Type | Desktop full-color laser beam printer |
| Printing system | Semiconductor laser and electrostatic image transfer to plain paper |
| Exposure system | 2 laser diodes and polygon mirror |
| PC drum type | OPC (organic photo conductor) |
| Photoconductor cleaning | Blade cleaning system |
| Resolution | 1200 x 600 dpi, 600 x 600 dpi |
| Media feeding system | One-way system (Tray 1: 200 sheets) * Expandable to a two-way system by adding an optional Lower Feeder Unit. |
| Developing system | Single-element developing system |
| Charging system | DC comb electrode scorotron system |
| Image transfer system | Intermediate transfer belt system |
| Media separating system | Curvature separation + Charge-neutralizing system |
| Fusing system | Roller fusing |
| Media exit system | Face down (Output tray capacity: 100 sheets) |

B. Functions

| | | |
|---|--|-------------------------------------|
| Warm-up time | Average 30 seconds (time to return to Ready mode from Energy Save mode) | |
| Process speed | Plain paper | 126.78 mm/second |
| | Thick stock | 63.39 mm/second |
| First-Page-Out Time (A4/letter, Plain paper) | Full color | 1-sided: 21 seconds |
| | Monochrome | 1-sided: 12 seconds |
| First copy time (A4/Letter, Plain paper) | Full color | 1-sided: 52 seconds (600 x 300 dpi) |
| | Monochrome | 1-sided: 23 seconds (600 x 300 dpi) |
| Print speed (A4/Letter, Plain paper) | Full color | 1-sided: 5 pages/minute |
| | Monochrome | 1-sided: 20 pages/minute |
| Custom media sizes | Paper width: 92 to 216 mm (3.6" to 8.5") | |
| | Paper length: 195 to 356 mm (Plain paper) | |
| | 184 to 297 mm (Thick paper) | |
| Media types | <ul style="list-style-type: none"> • Plain paper (60 to 90 g/m²) • Thick stock 1 (91 to 163 g/m²) • Thick stock 2 (164 to 209 g/m²) • Postcards • Envelopes • Letterhead • Label stock | |
| | Plain paper and letterhead | :200 sheets |
| | Thick stock, postcards, labels stock, and glossy stock | :50 sheets |
| | Envelopes | :10 sheets |
| | | |
| | | |

Lower Feeder Unit: Only plain paper and recycled paper weighing 60 to 90 g/m² (16 to 24 lb) can be loaded.

Duplex Option: Only plain paper and recycled paper weighing 60 to 90 g/m² (16 to 24 lb) can be fed through the unit.

C. Maintenance

| | |
|--------------------|---|
| Machine durability | 50,000 prints or 5 years, whichever comes first |
|--------------------|---|

D. Machine specification

| | | |
|-----------------------|--|--|
| Power requirements | voltage: | AC 120 V ± 10 % AC 220 to 240 V ± 10% |
| | Frequency: | 60 Hz ± 3 Hz (for North america) 50/60 Hz ± 3 Hz (for Europe) |
| Max power consumption | 990 W or less (120 V) 1060 W or less (220 V to 240 V) | |
| Dimensions | 405 mm (W) x 427 mm (D) x 432 mm (H) | |
| Weight | 21.0 kg (including the consumables) | |
| Operation noise | During standby | 38 dB (A) |
| | During printing | 49 dB (A): monochrome |

E. Operating environment

| | |
|-------------|--|
| Temperature | 10 to 35 °C / 50 to 95 °F (with a fluctuation of 10 °C / 18 °F or less per hour) |
| Humidity | 15% to 85% (with a fluctuation of 20% or less per hour) |

F. Controller

| | |
|-----------------|--|
| Type | Built-in type controller |
| Standard memory | 128MB |
| Interfaces | USB 2.0 (High Speed) compliant, 10Base-T/100Base-TX Ethernet, Host USB (for scan to USB memory) |
| Support | <ul style="list-style-type: none"> • Microsoft Windows Vista Home Basic/Home Premium/Ultimate/Business/Enterprise, Windows Vista Home Basic/Home Premium/ Ultimate/Business/Enterprise x64 Edition, Windows XP Home Edition/Professional (Service Pack 2 or later), Windows XP Professional x64 Edition, Windows Server 2003, Windows Server 2003 x64 Edition, Windows 2000 (Service Pack 4 or later) • Mac OS X (10.2.8 or later; We recommend installing the latest patch) |

NOTE

- These specifications are subject to change without notice.

MAINTENANCE

3. Periodical check

3.1 Maintenance items

3.1.1 Parts to be replaced by users (CRU)

| Class | Part to be replaced | Number of prints | Clean | Replace |
|---------------------------------|---|---|-------|---------|
| Processing section | Standard in-box toner cartridge (C, M, Y) | 500 (Continuous printing) | | ● |
| | Standard in-box toner cartridge (K) | 1,000 (Continuous printing) | | ● |
| | Standard-capacity toner cartridge (C, M, Y) | 1,500 (Continuous printing) | | ● |
| | High-capacity toner cartridge (C, M, Y, K) | 2,500 (Continuous printing) | | ● |
| | Imaging cartridge | Monochrome 45,000 (Continuous printing) *1 | | ● |
| | | Monochrome 10,000 (1P/J) *1 | | |
| | | Full Color 11,250 (Continuous printing) *1 | | |
| | | Full Color 7,500 (1P/J) *1 | | |
| | PH window | When a malfunction occurs | ● | |
| Fusing section | Fuser unit | 50,000 | | ● |
| Tray 1 media feed section | Media feed roller | When malfunction occurs | ● | |
| Tray 2 media feed section | Media feed roller | When malfunction occurs | ● | |
| ADF document feed section | Media feed roller | When malfunction occurs | ● | |
| Duplex option transport section | Transport roller | When malfunction occurs | ● | |
| | Media feed roller *2 | | ● | |

*1: In case of single side printing for normal paper of A4/Letter size

*2: Only when the duplex option attachment is installed.

3.2 Concept of parts life

| | Description | Near life value | Life value | Max. life value |
|--|---|---|---------------|-------------------------------|
| Toner cartridge | The consumption rates are calculated from the dot counter and the image counter and the life is reached when the consumption rate, whichever is greater, reaches 100%. | High-capacity toner cartridge (C, M, Y, K) | 2,350 pages | 2,500 pages 3,500 pages *1 |
| | | Standard-capacity toner cartridge (C, M, Y) | 1,350 pages | 1,500 pages 2,100 pages *1 |
| | | Standard in-box toner cartridge (K) | 850 pages | 1,000 pages 1,400 pages *1 |
| | | Standard in-box toner cartridge (K) / Standard in-box toner cartridge (C, M, Y) | 350 pages | 500 pages 700 pages *1 |
| Imaging cartridge | The imaging cartridge drive time count is compared with the printed page count and whichever reaching its life value is detected. | — | 45,000 images | 48,500 images |
| Waste toner bottle (integrated in I/C) | Detected with the waste toner near full sensor. A waste toner full condition is detected when 200 more images are produced after a waste toner near-full condition has been detected. | — | — | — |
| Fuser unit | The fuser unit drive time is counted based on the transport motor drive time. The consumption rates of the fuser unit drive time count and the printed page count are calculated and the life value is reached when the consumption rate, whichever is greater, reaches 100%. | — | 50,000 prints | — |
| Transfer roller | The number of printed pages is counted. | — | 50,000 prints | — |

*1: The machine prohibits the initiation of any new print cycle when the maximum life value is reached.

A. Conditions for life specifications values

- The life specification values represent the number of pages printed or figures equivalent to it when the given conditions (see the table given below) are met. They may be more or less, depending on the machine operating conditions of each individual user.

| Item | Description |
|------------------|--|
| Job type | Monochrome: 3 consecutive pages (3 pages/job) Full Color: 2 consecutive pages (2 pages/job) |
| Media size | A4S or LetterS |
| Color ratio | Black to Color = 1 : 1 |
| Original density | ISO chart C/W ratio = 5% each color |

3.3 Maintenance Procedure (periodical check parts)

3.3.1 Toner cartridge (C/M/Y/K)

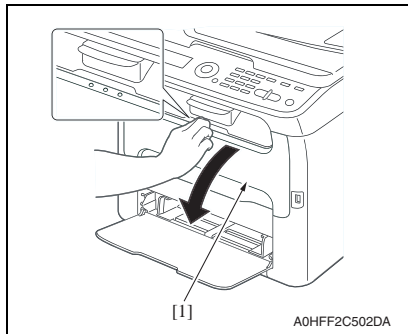
A. Periodically replaced parts/cycle

- Standard in-box toner cartridge (C, M, Y): Every 500 prints
- Standard in-box toner cartridge (K): Every 1,000 prints
- Standard-capacity toner cartridge (C,M,Y): Every 1,500 prints
- High-capacity toner cartridge (C,M,Y,K): Every 2,500 prints

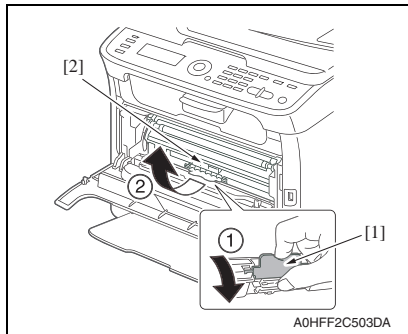
B. Removal procedure

1. Check the color of the toner cartridge to be replaced on the control panel.
2. Select [PRINTER MODE] - [T/C CHANGE] - [REPLACE MODE] from the menu and select the toner cartridge of the specific color of toner to be replaced.

See P.97



3. Open the front cover [1] and make sure that the specific toner cartridge to be replaced is in the front.



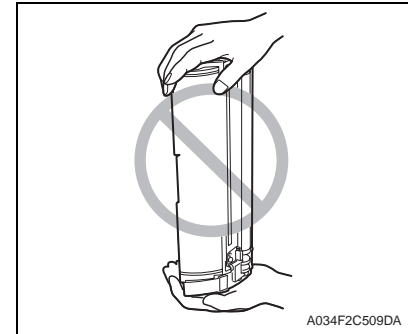
4. Hold onto the handle [1] of the toner cartridge, pull it and remove the toner cartridge [2].

NOTE

- When all toner cartridges need to be removed and replaced manually, select [PRINTER MODE] - [T/C CHANGE] - [EJECT MODE].

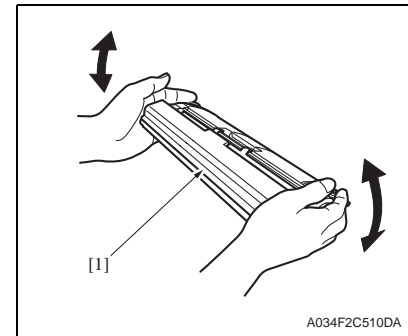
See P.98

C. Reinstallation procedure

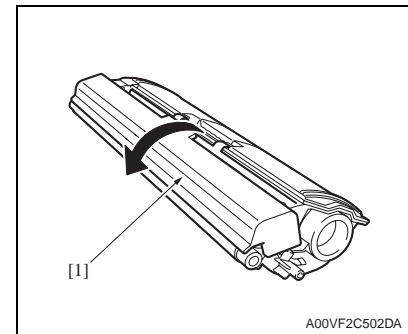


NOTE

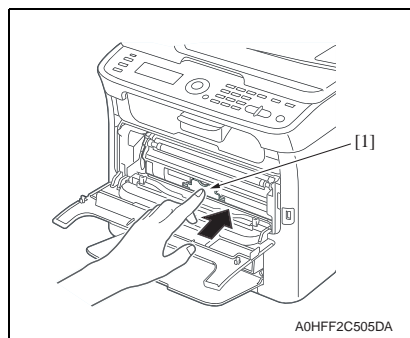
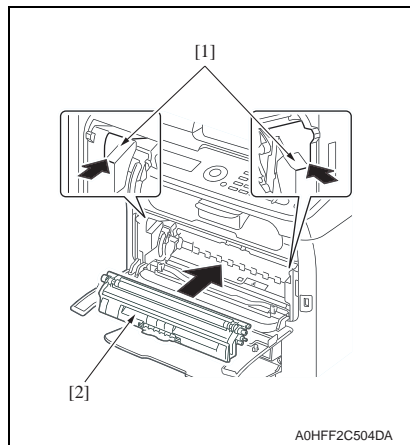
Do not let the toner cartridge stand upright or keep it in that upright position.



1. Shake the toner cartridge [1] a few times to distribute the toner.



2. Remove the protective cover [1].



5. Close the front cover.
6. Press the Clear key.

3. Aligning the shaft [1] on both sides of the toner cartridge with the rails in the machine, install the toner cartridge [2].

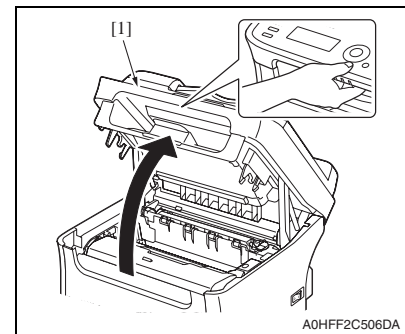
4. Press in the toner cartridge until [1] it locks into place.

3.3.2 Imaging cartridge

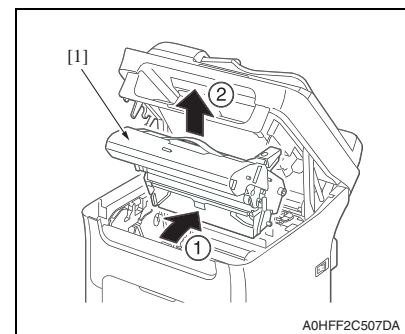
A. Periodically replaced parts/cycle

- Imaging cartridge (Monochrome continuous printing): Every 45,000 counts
- Imaging cartridge (Monochrome 1P/J): Every 10,000 counts
- Imaging cartridge (Full color continuous printing): Every 11,250 counts
- Imaging cartridge (Full color 1P/J): Every 7,500 counts

B. Replaced procedure



1. Open the top cover [1].

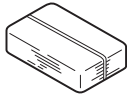



2. Hold onto the handle [1] of the imaging cartridge [2], pull it up slowly to remove the imaging cartridge as shown in the picture.

3. To reinstall, reverse the order of removal.

4. Service tool

4.1 Service material list

| Tool name | Shape | Material No. | Remarks |
|-------------------|---|--------------|---|
| Cleaning pad |  | | Cleaning pad can be substituted with the lint-free cloth. |
| Isopropyl alcohol |  | | |

5. Firmware upgrade

5.1 Preparations for firmware upgrading

NOTE

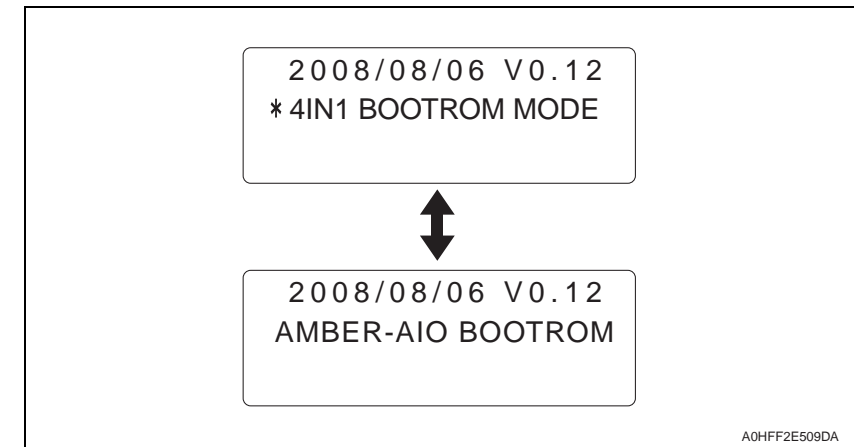
- **Make sure that the scanner driver has been installed in the PC.**
- **Before updating the firmware, print Configuration Page to confirm the current Firmware Version.**

[See P.100](#)

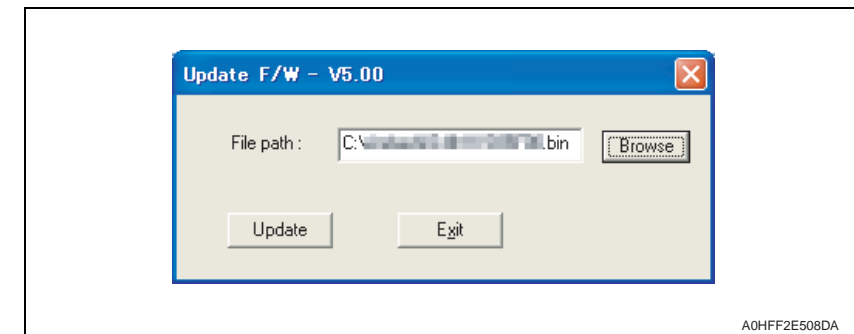
5.2 Upgrading procedure

5.2.1 Boot Rom firmware rewriting

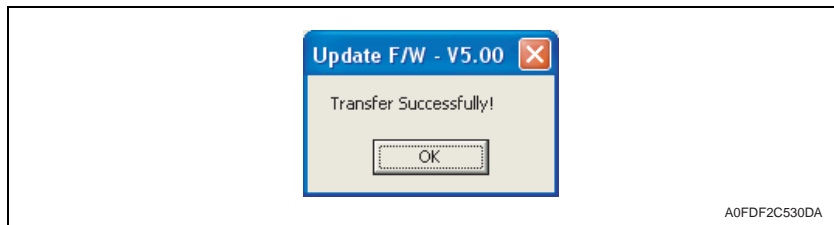
1. Connect the machine and PC using the USB cable.
2. Turn ON the machine's main switch pressing Select key.
3. Confirm that [AMBER-AIO BOOTROM] appears on the screen.



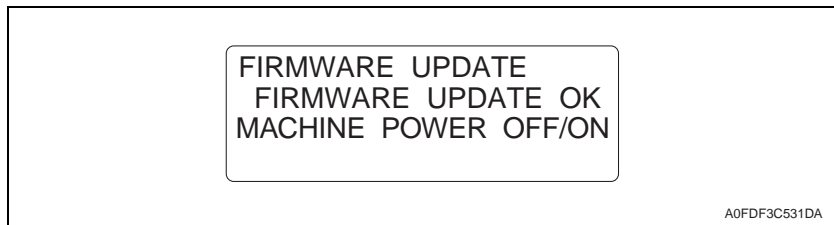
4. Copy the firmware data and upgrading program in any arbitrary directory of the PC.
5. Double-click "UpdateFW.exe".
6. Click [Browse] and select File path, "XXXXX.bin".
7. Click [Update].



8. Firmware updating starts.
9. When [Transfer Successfully!] message appears on the screen, click [OK] to close the execution tool.



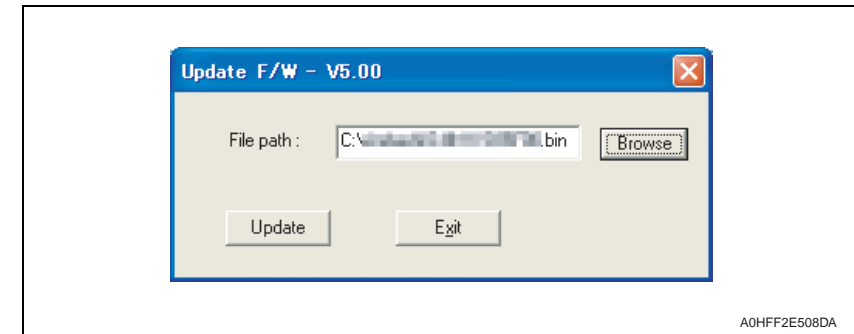
10. Confirm that [FIRMWARE UPDATE OK] message has been displayed, and turn OFF/ON the machine's main switch.



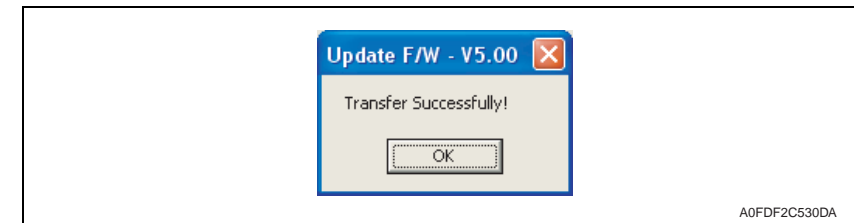
11. Print [CONFIGURATION PAGE] to confirm the Boot Code Firmware Version.
See P.100

5.2.2 Controller firmware upgrading

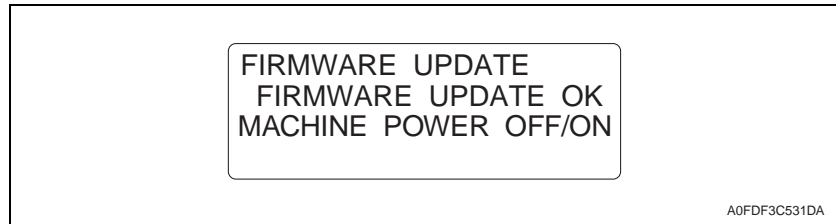
1. Connect the machine and PC using the USB cable.
2. Copy the firmware data and upgrading program in any arbitrary directory of the PC.
3. Double-click "UpdateFW.exe".
4. Click [Browse] and select File path, "XXXXX.bin".
5. Click [Update].



6. Firmware updating starts.
7. When [Transfer Successfully!] message appears on the screen, click [OK] to close the execution tool.



8. Confirm that [FIRMWARE UPDATE OK] message has been displayed, and turn OFF/ON the machine's main switch.



9. Print [CONFIGURATION PAGE] to confirm the Controller Firmware Version.
[See P.100](#)

6. Other

6.1 Disassembly/adjustment prohibited items

A. Paint-locked screws

NOTE

- To prevent loose screws, a screw lock in blue or green series color is applied to the screws.
- The screw lock is applied to the screws that may get loose due to the vibrations and loads created by the use of machine or due to the vibrations created during transportation.
- If the screw lock coated screws are loosened or removed, be sure to apply a screw lock after the screws are tightened.

B. Red-painted screws

NOTE

- The screws which are difficult to be adjusted in the field are painted in red in order to prevent them from being removed by mistake.
- Do not remove or loosen any of the red-painted screws in the field. It should also be noted that, when two or more screws are used for a single part, only one representative screw may be marked with the red paint.

C. Variable resistors on board

NOTE

- Do not turn the variable resistors on boards for which no adjusting instructions are given in Adjustment/Setting.

D. Removal of PWBs

⚠ CAUTION

- When removing a circuit board or other electrical component, refer to "Handling of PWBs" and follow the corresponding removal procedures.
- The removal procedures given in the following omit the removal of connectors and screws securing the circuit board support or circuit board.
- Where it is absolutely necessary to touch the ICs and other electrical components on the board, be sure to ground your body.

6.2 Disassembly/assembly/cleaning list (other parts)**6.2.1 Disassembly/assembly parts list**

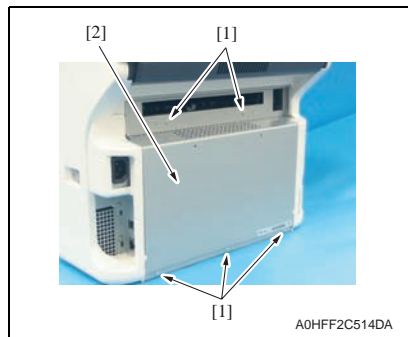
| Section | Part name | Ref.Page |
|-----------------|---|----------------------|
| Exterior parts | Rear cover | P.76 |
| | Left cover | P.76 |
| | Right cover | P.76 |
| | ADF rear cover | P.76 |
| | Operation panel | P.77 |
| | Original glass assy | P.77 |
| Boards and etc. | Print control board (PRCB) | P.78 |
| | MFP board (MFPB) | P.79 |
| | FAX control board (FAXB) | P.80 |
| | USB board (USB) | P.80 |
| | DC power supply (DCPU) | P.81 |
| | High voltage unit (HV) | P.82 |
| Units | Transfer roller unit | P.82 |
| | Fuser unit | P.83 |
| | PH unit | P.83 |
| | Media feed driving unit | P.84 |
| | IR unit | P.85 |
| | Scanner unit | P.86 |
| | Auto document feeder unit (ADF) | P.87 |
| Other Parts | Transport motor (M1) | P.88 |
| | Developing motor (M3) | P.88 |
| | Scanner motor assy | P.89 |
| | DC power supply fan motor (FM1) | P.90 |
| | Ozone ventilation fan motor (FM2) | P.90 |
| | Exit tray cooling fan motor (FM4) | P.91 |
| | Tray1 media feed solenoid (SD1) | P.91 |
| | Registration roller solenoid (SD2) | P.92 |
| | 2nd image transfer pressure/retraction solenoid (SD4) | P.92 |
| | Cleaning blade pressure/retraction solenoid (SD5) | P.93 |
| | Speaker (SP) | P.93 |
| | Tray1 media feed roller | P.93 |
| | Separation pad | P.93 |
| | ADF Separation pad | P.94 |

6.2.2 Cleaning parts list

| Section | Part name | Ref.Page |
|--------------------|-------------------------|----------------------|
| Tray 1 | Tray1 media feed roller | P.95 |
| Processing section | Print head window | P.95 |
| ADF | ADF media feed roller | P.95 |

6.3 Disassembly/assembly procedure

6.3.1 Rear cover



1. Remove five screws [1], and remove the rear cover [2].

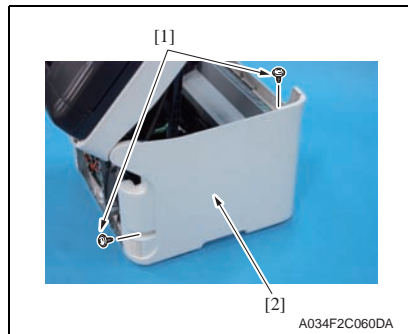
6.3.2 Left cover

⚠ WARNING



- Make sure to remove the rear cover before mounting the left cover in order to prevent the gasket attached to the cover from coming off. The gasket removing may lead electric leakage, which could cause electric shock during the machine operation. Or if the gasket flakes off into the machine, it may cause abnormal heat generation.

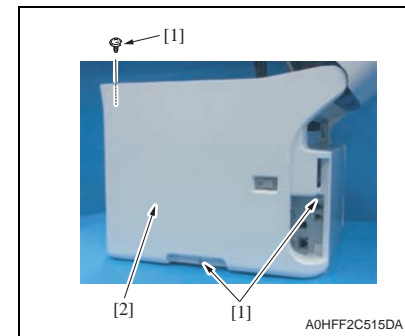
1. Remove the rear cover.
[See P.76](#)
2. Open the top cover.
3. Open the front cover.



4. Remove two screws [1], and remove the left cover [2].

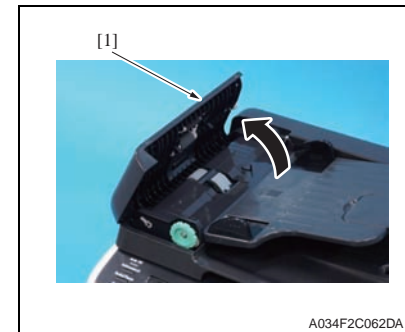
6.3.3 Right cover

1. Open the top cover.
2. Open the front cover.

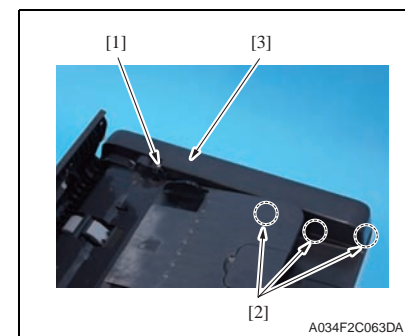


3. Remove three screws [1], and remove the right cover [2].

6.3.4 ADF rear cover

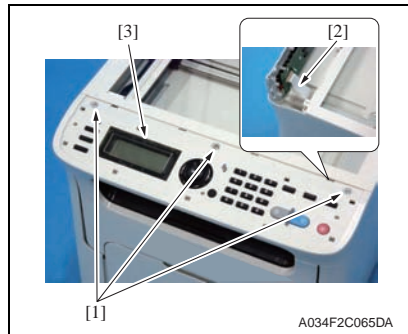
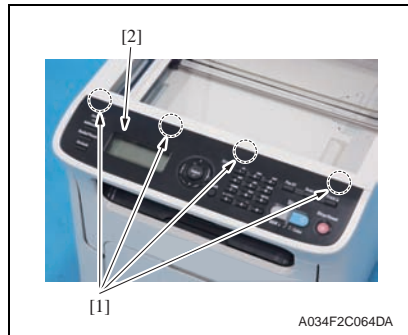


1. Open the ADF top cover [1].



2. Remove the screw [1] and unhook three tabs [2], and remove the ADF rear cover [3].

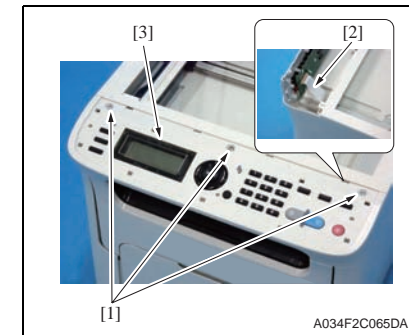
6.3.5 Operation panel



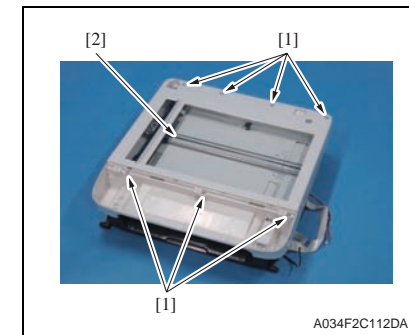
1. Unhook four tabs [1], and remove the operation panel sheet [2].
2. Remove three screws [1] and disconnect the flat cable [2], and remove the operation panel [3].

6.3.6 Original glass assy

1. Remove the auto document feeder unit.
[See P.87](#)



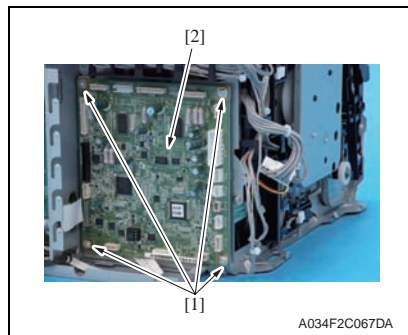
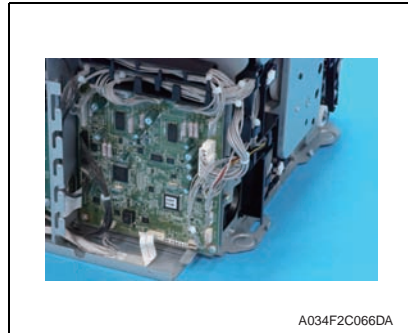
2. Remove three screws [1] and disconnect the flat cable [2], and remove the operation panel [3].



3. Remove seven screws [1], and remove the original glass [2].

6.3.7 Print control board (PRCB)

1. Remove the rear cover.
[See P.76](#)
2. Remove the left cover.
[See P.76](#)

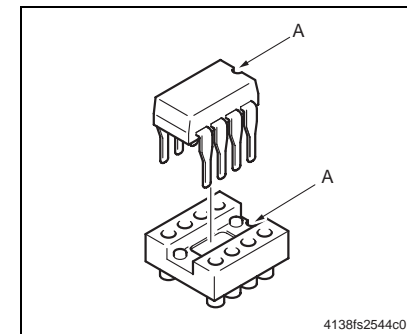
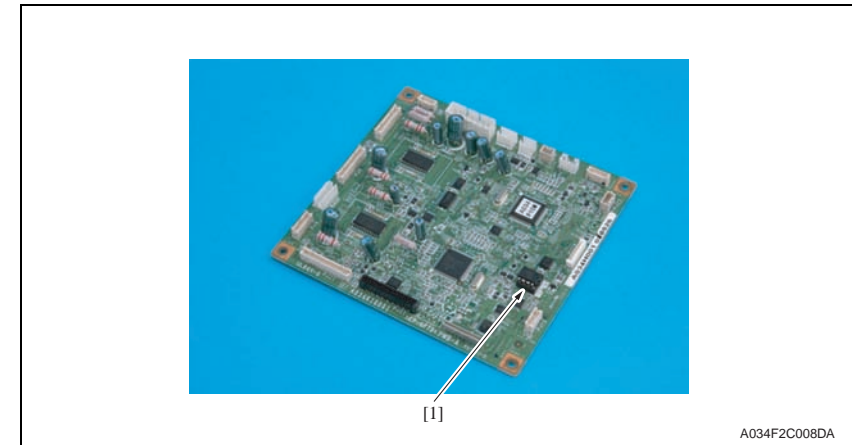


3. Disconnect all connectors and flat cables from the printer control board.
4. Remove four screws [1] and remove the printer control board [2].

5. Remove parameter chip (IC9) [1] from the printer control board.

NOTE

- When the printer control board (PRCB) has been replaced, be sure to remount parameter chip (IC9). Remove parameter chip (IC9) from the old printer control board and mount it on the new printer control board.



NOTE

- When mounting parameter chip (IC9), align the notches (indicated by "A" in the illustration).

NOTE

- When the printer control board is replaced with a new one, be sure to execute [BK CLEAR].
[See P.129](#)

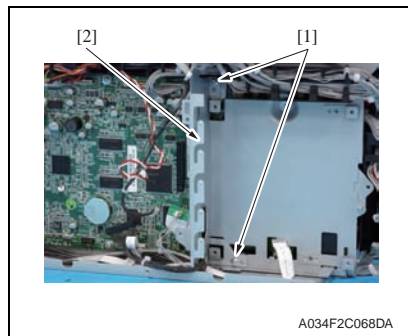
6.3.8 MFP board (MFPB)

NOTE

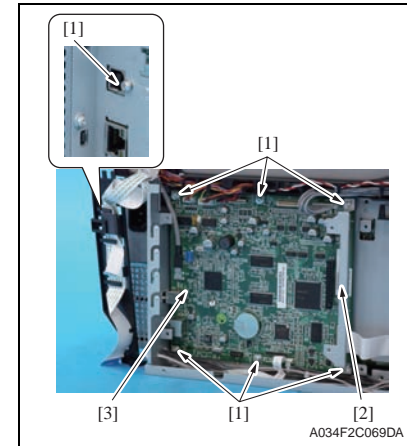
- For MC160n, boot data is written to the MFP board and firmware data is written to the FAX control board. To avoid any problem, be sure to replace both the MFP board and FAX control board at one time.
- When the MFP board is replaced, the setting values for the following items are cleared. Enter new setting values in the service mode.
For the new setting values, refer to the values set at the shipment, which is shown on the back side of the label located inside of the front door.

| Items for adjustment | |
|----------------------|---|
| CIS MAIN ZOOM | ○ |
| CIS SUB ZOOM | ○ |
| CIS MAIN REGIST | ○ |
| CIS SUB REGIST | ○ |
| ADF SUB ZOOM | ○ |
| ADF MAIN REG | ○ |

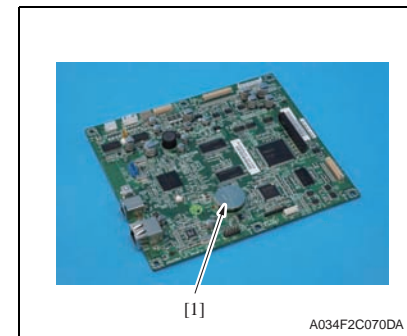
- Remove the rear cover.
[See P.76](#)
- Remove the right cover.
[See P.76](#)
- Remove the printer control board.
[See P.78](#)
- Remove the FAX control board.
[See P.80](#)



- Remove two screws [1], and remove the plate [2].



- Disconnect all connectors and flat cables from the MFP board.
- Remove seven screws [1], and remove the plate [2] and the MFP board [3].



- Remove the back up battery [1] on the MFP board.

NOTE

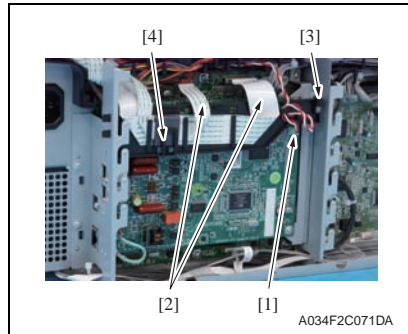
- When the MFP board is replaced, upgrade the firmware to the latest version.
[See P.73](#)
- When the MFP board is replaced with a new one, be sure to execute [BK CLEAR].
[See P.129](#)

6.3.9 FAX control board (FAXB)

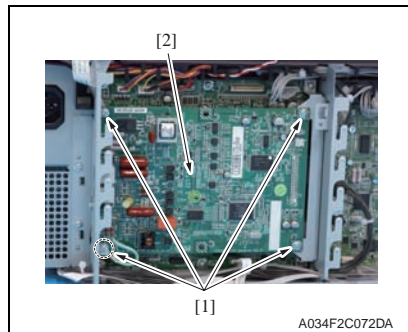
NOTE

- For MC160n, boot data is written to the MFP board and firmware data is written to the FAX control board. To avoid any problem, be sure to replace both the MFP board and FAX control board at one time.

- Remove the rear cover.
[See P.76](#)
- Remove the right cover.
[See P.76](#)



- Disconnect the connector (P1) [1].
- Disconnect two flat cables (P6, P7) [2].
- Unhook the tab [3], remove the harness guide [4].



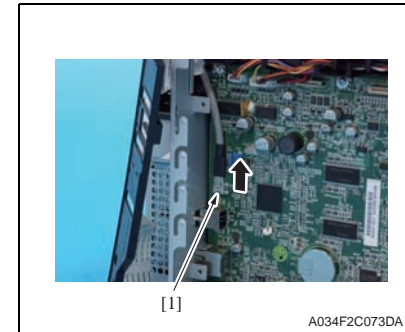
- Remove four screws [1], and remove the FAX control board [2].

NOTE

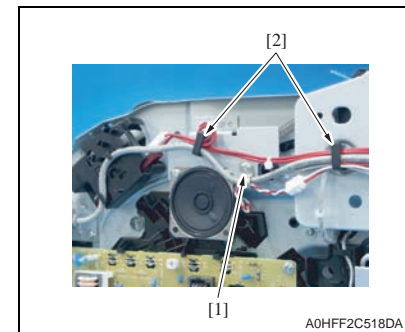
- When installing the FAX control board, each of the screws indicated by the arrows also fixes an earth terminal.

6.3.10 USB board (USB)

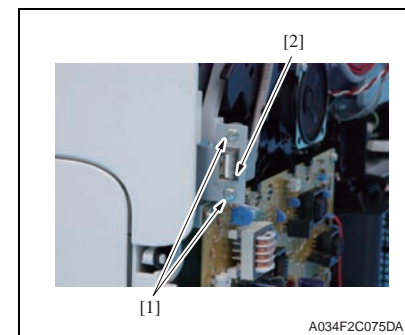
- Remove the rear cover.
[See P.76](#)
- Remove the right cover.
[See P.76](#)
- Remove the FAX control board.
[See P.80](#)



- Disconnect the connector (CN1) [1] from the MFP board.



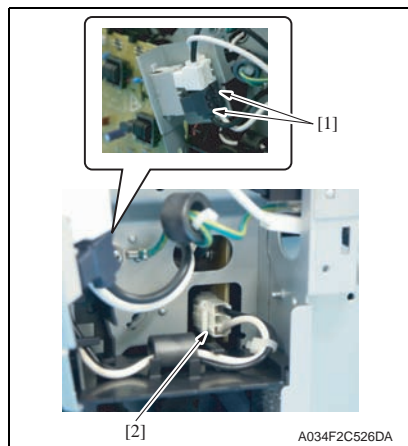
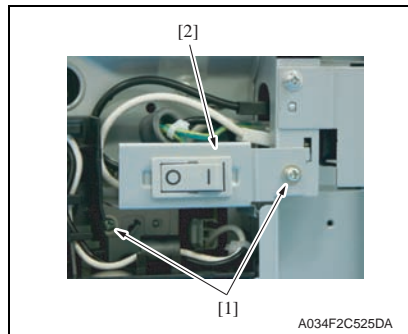
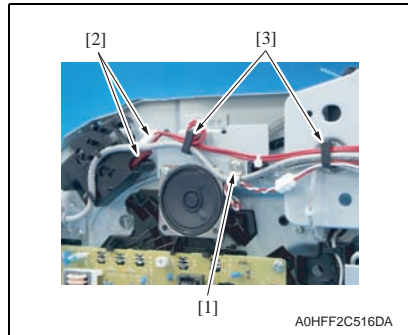
- Remove the harness [2] from two wire saddles [1].



- Remove two screws [1], and remove the USB board [2].

6.3.11 DC power supply (DCPU)

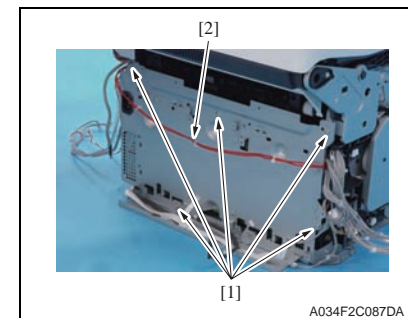
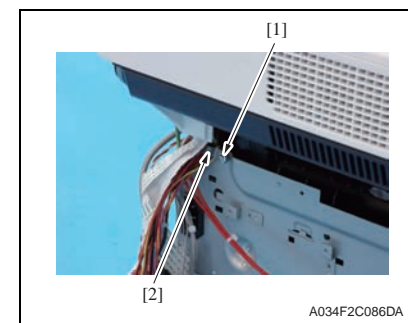
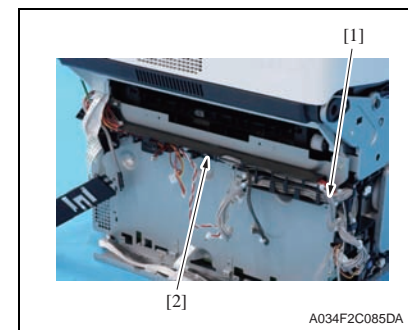
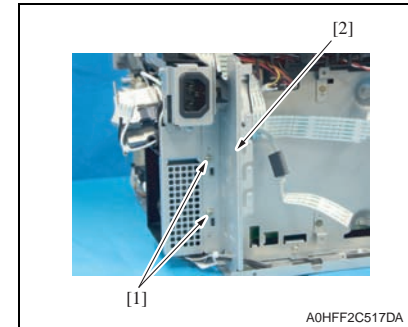
1. Remove the printer control board.
[See P.78](#)
2. Remove the FAX control board.
[See P.80](#)
3. Remove the MFP board.
[See P.79](#)



4. Remove the screw [1].
5. Disconnect two connectors [2] (Red and white), remove the harness from two wire saddles [3].

6. Remove two screws [1], and remove the main switch [2].

7. Disconnect two connectors (black) [1].
8. Disconnect the connector [2].

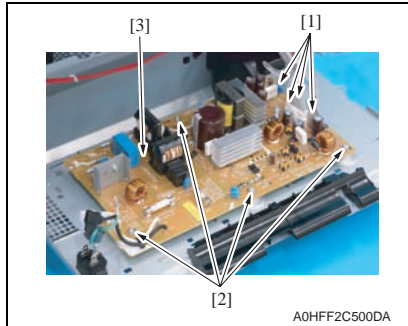


9. Remove two screws [1], and remove the plate [2].

10. Remove the harness [1], and remove the harness guide [2].

11. Remove the screw [1], and remove the harness band [2].

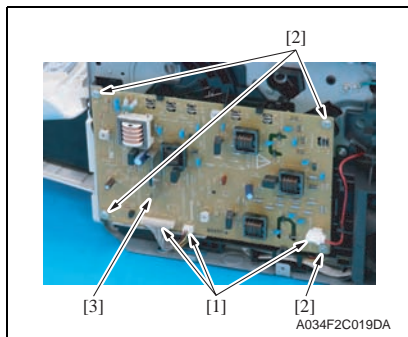
12. Remove five screws [1] to pull out the DC power unit assy [2].



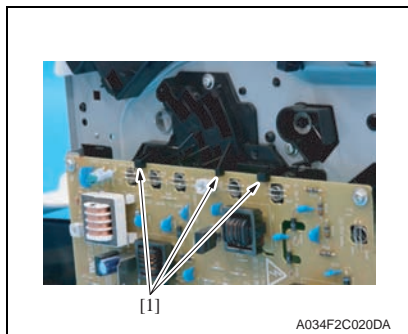
13. Disconnect four connectors [1] and remove four screws [2], and remove the DC power supply assy [3].

6.3.12 High voltage unit (HV)

1. Remove the right cover.
See P.76



2. Disconnect three connectors [1] and remove four screws [2], and remove the high voltage unit [3].

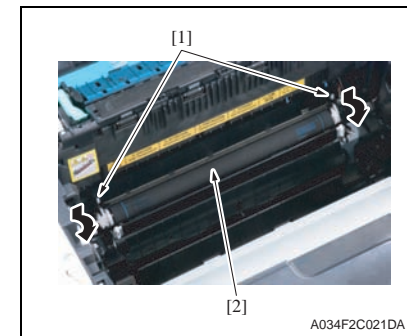


Precautions for reinstallation of the high voltage unit

- Make sure that the high voltage unit fits into the tab [1] at the location shown on the left.
- During the reinstallation procedure, make sure that the high voltage terminal is not deformed or left loose.

6.3.13 Transfer roller unit

1. Remove the imaging cartridge.
See P.71



2. Press and pull the levers [1] at both sides forward to remove the transfer roller unit [2].

NOTE

- Use care not to lose the two springs of the transfer roller unit. They can easily come off.

3. To reinstall, reverse the order of removal.

NOTE

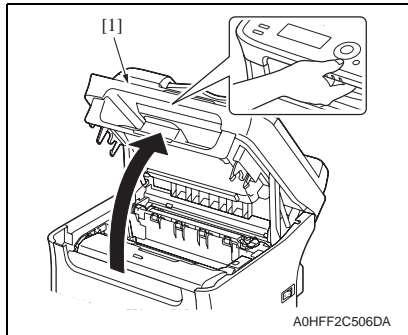
- When the transfer roller unit is replaced with a new one, it is necessary to reset the maintenance counter.
See P.129
- Make calibration after replacing the transfer roller unit.
See P.105

6.3.14 Fuser unit

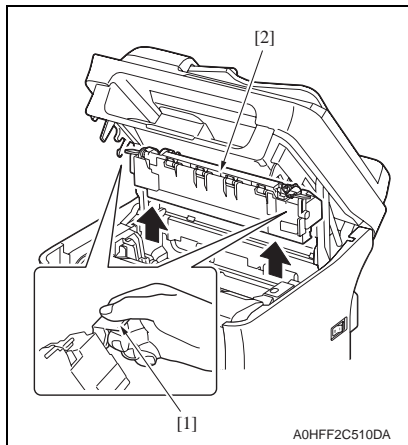
CAUTION

- The temperature gets high in the vicinity of the fuser unit. You may get burned when you come into contact with the area. Before replacement operations, make sure that more than 20 minutes have elapsed since the main and sub power switches were turned off.

1. Turn OFF the power switch, unplug the power cord from the power outlet, and let the machine to stand idle for about 20 min.



2. Open the top cover [1].



3. Pull up the lever [1] to remove the fuser unit [2].

4. To reinstall, reverse the order of removal.

NOTE

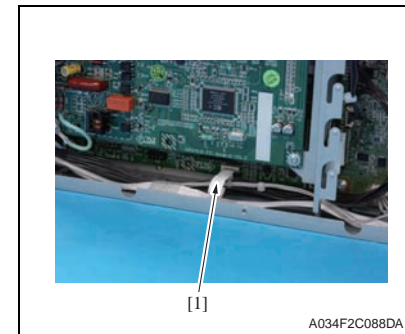
- When the fuser unit is replaced with a new one, it is necessary to reset the maintenance counter.
[See P.129](#)

6.3.15 PH unit

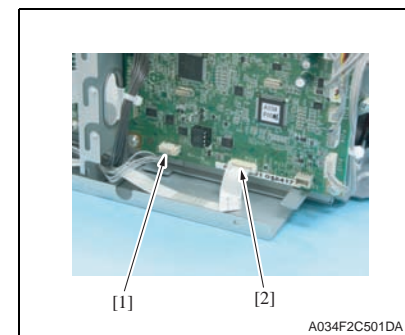
CAUTION

- Do not replace the printer head unit while the power is ON. Laser beam generated during the above mentioned activity may cause blindness.
- Do not disassemble or adjust the printer head unit. Laser beam generated during the above mentioned activity may cause blindness.

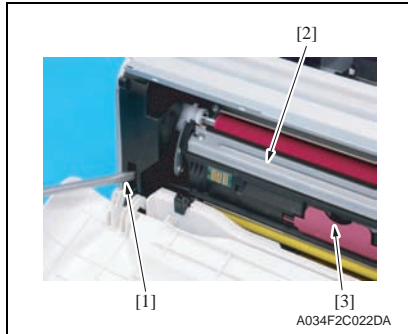
1. Remove the imaging cartridge.
[See P.71](#)
2. Remove the rear cover.
[See P.76](#)
3. Remove the right cover.
[See P.76](#)
4. Remove the left cover.
[See P.76](#)
5. Remove the operation panel.
[See P.77](#)
6. Remove the high voltage unit.
[See P.82](#)



7. Disconnect the flat cable (P8) [1] on the MFP board.



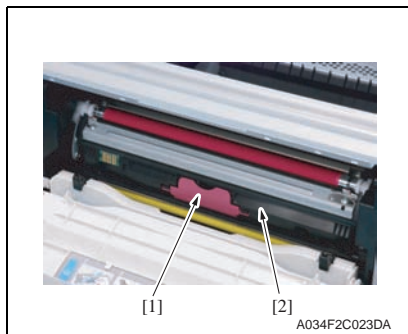
8. Disconnect the connector (PJ19) [1] and flat cable (PJ18) [2] on the printer control board.



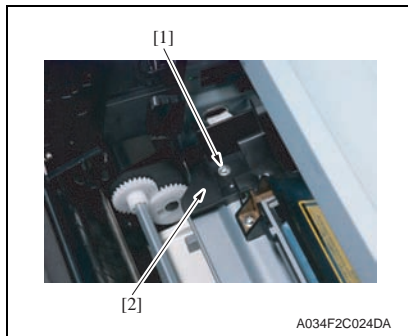
9. Press the rack release lever [1] and then rotate the rack [2] so that the toner cartridge [3] is moved to a position, at which the toner cartridge can be easily removed.

NOTE

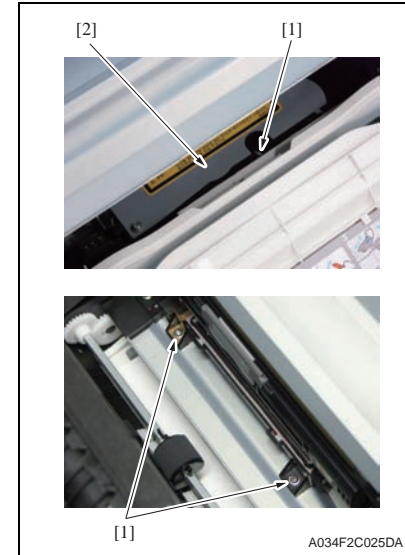
- When rotating the rack, use care not to touch the developing roller.



10. Hold onto the handle [1], pull it and remove the toner cartridge [2].
11. Repeat steps 9. and 10. to remove all toner cartridges.



12. Remove the screw [1], and remove the cover [2].



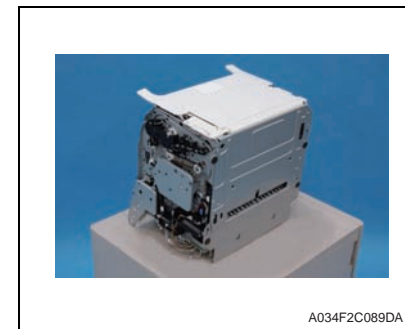
13. Remove three screws [1], and remove the PH unit [2].

NOTE

- To remove the front screw, move the rack to the position where the screw can be removed easier and remove the screw using a short driver.

6.3.16 Media feed driving unit

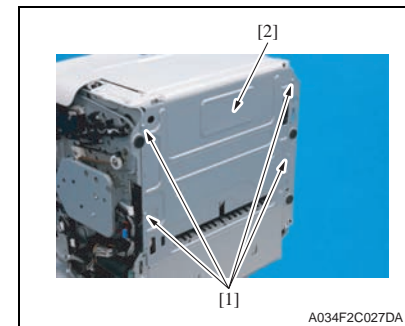
1. Remove the IR unit.
[See P.85](#)



2. Lay the main body of the printer on its back.

NOTE

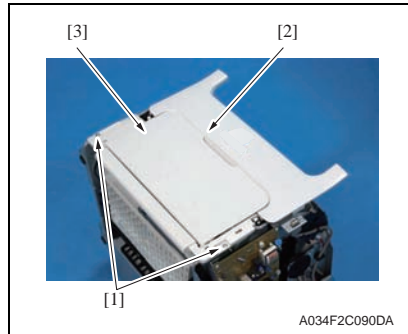
- Put the printer on the flat place such as a desk for this work, not to impose unreasonable force on the machine.



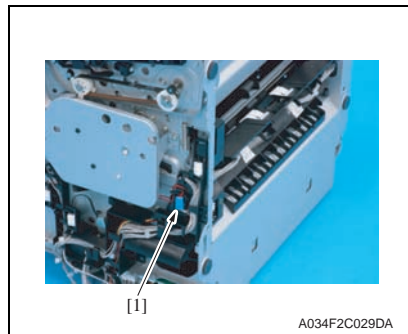
3. Remove four screws [1], and remove the plate [2].

NOTE

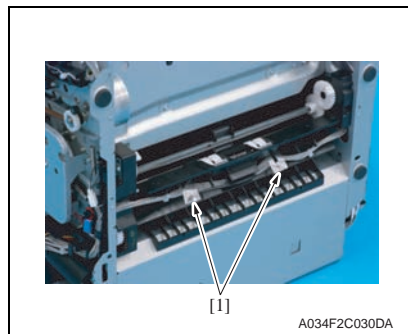
- Use care not to lose the two springs.



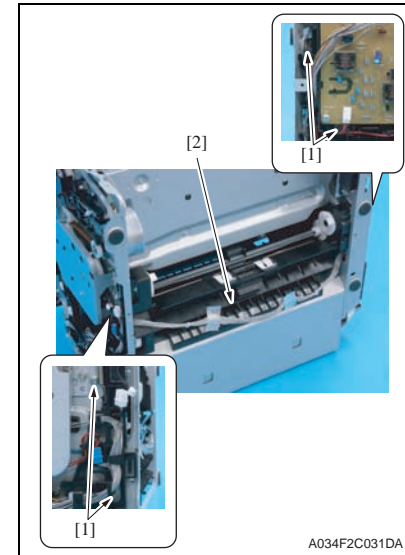
4. Remove two screws [1] and open the front cover [2] to remove the media feed tray unit [3].



5. Disconnect the connector [1] of the tray1 media feed solenoid.



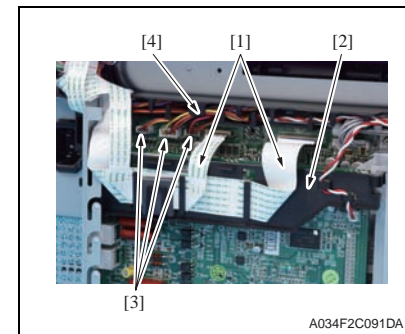
6. Remove the tapes [1] at two positions.



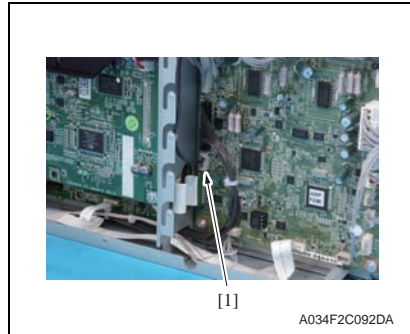
7. Remove four screws [1], and remove the media feed driving unit [2].

6.3.17 IR unit

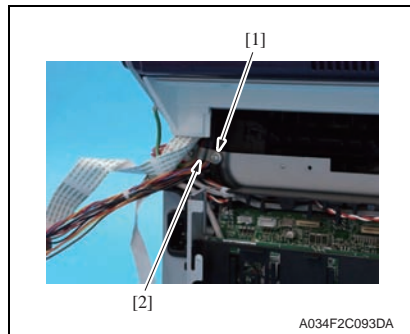
1. Remove the rear cover.
[See P.76](#)
2. Remove the right cover.
[See P.76](#)
3. Remove the left cover.
[See P.76](#)



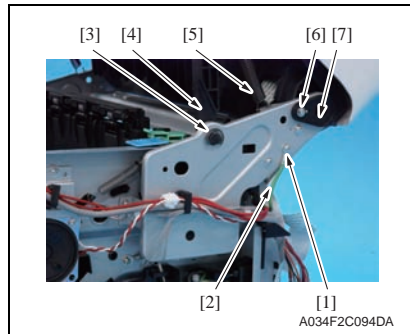
4. Remove two flat cables [1] (P6, P7) from the MFP board and remove them from the guide [2].
5. Remove three connectors [3] (P1, P2, P4) from the MFP board. Remove their harness from the harness guide [4].



6. Remove the connector (PJ24) [1] from the printer control board and remove its harness from the harness guide.



7. Remove the screw [1], and remove the harness band [2].

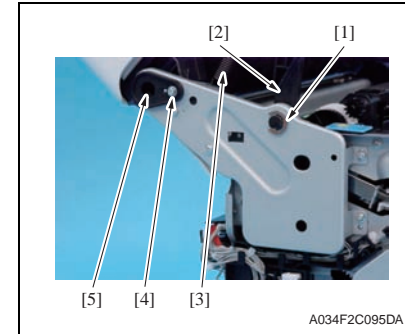


8. Remove the screws [1], and remove the earth cable [2].
9. Remove the E-ring [3] from the right of the main body and remove the arm [4].
10. Remove the spring [5] from the notch on the plate.

NOTE

- When removing the spring [5], the IR unit moves down, posing a danger of your hands getting caught under the IR unit. Be sure to securely hold the IR unit and prevent it from moving down.

11. Remove the screw [6], and remove the right stopper [7].

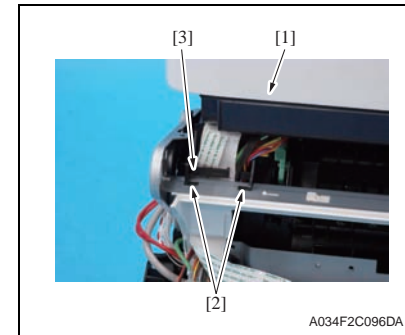


12. Remove the E-ring [1] from the left of the main body and remove the arm [2].
13. Remove the spring [3] from the notch on the plate.

NOTE

- When removing the spring [3], the IR unit moves down, posing a danger of your hands getting caught under the IR unit. Be sure to securely hold the IR unit to prevent it from moving down.

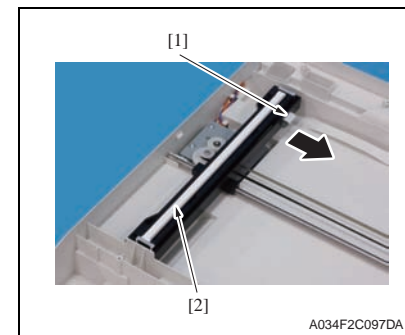
14. Remove the screw [4], and remove the left stopper [5].



15. Raise the IR unit [1] a little.
16. Unhook the tab [2], and remove the harness guide [3].
17. Pull out all harnesses and flat cables and remove the IR unit [1].

6.3.18 Scanner unit

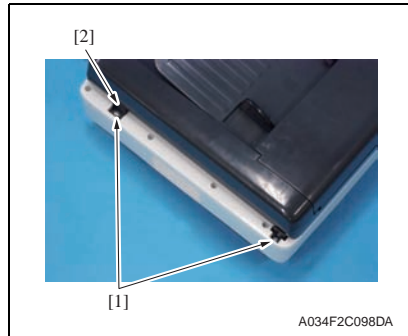
1. Remove the original glass.
[See P.77](#)



2. Disconnect the flat cable [1], and remove the scanner unit [2].

6.3.19 Auto document feeder unit (ADF)

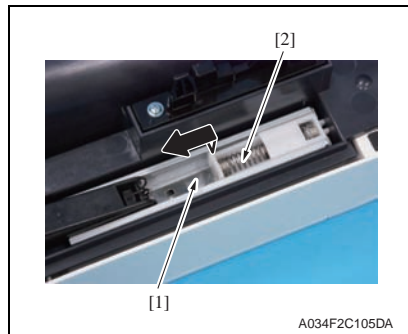
1. Remove the IR unit.
See P.85



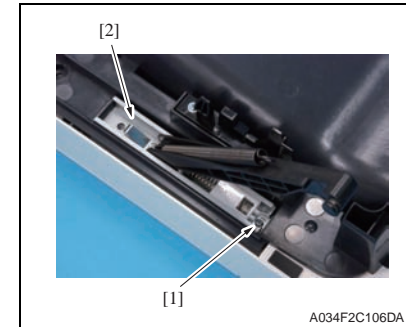
2. Remove two screws [1], and remove the stopper [2].



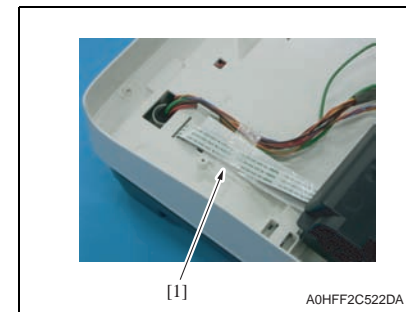
3. Remove the harness from the harness guide [1].



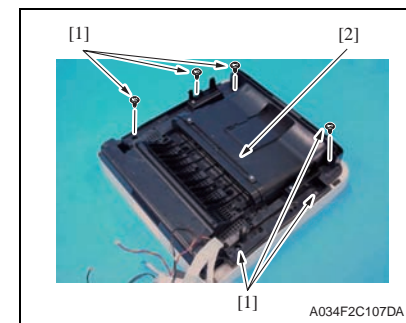
4. While pressing down the plate [1], move the spring assy [2] in the direction of the arrow.



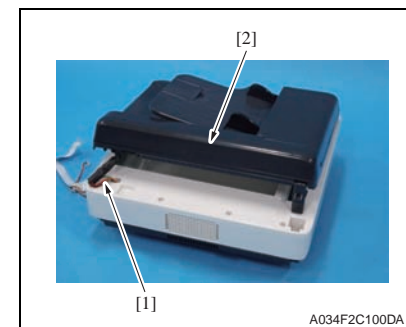
5. Remove the screw [1], and remove the arm unit [2].
6. Repeat the steps 4 and 5 to remove the arm unit located on the opposite side.



7. Remove the tape [1].



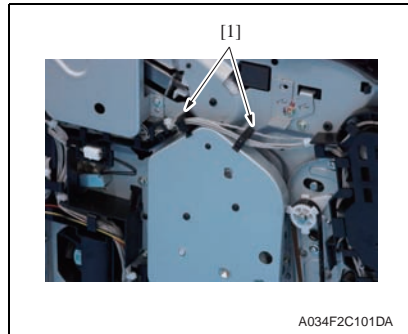
8. Remove six screws [1], and remove the IR unit lower cover assy [2].



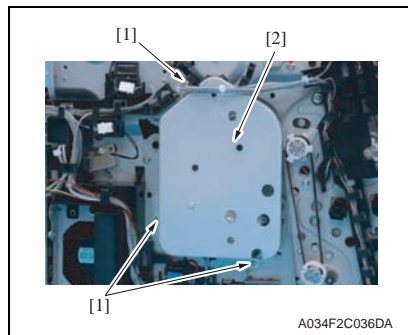
9. Pull out all harnesses [1] and remove the auto document feeder unit [2].

6.3.20 Transport motor (M1)

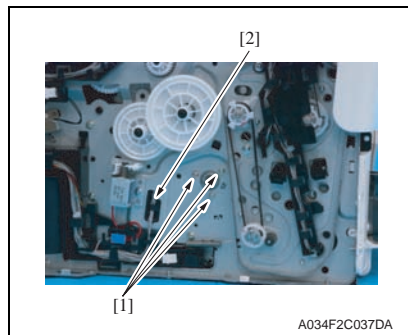
1. Remove the left cover.
[See P.76](#)
2. Remove all toner cartridges.
[See P.70](#)



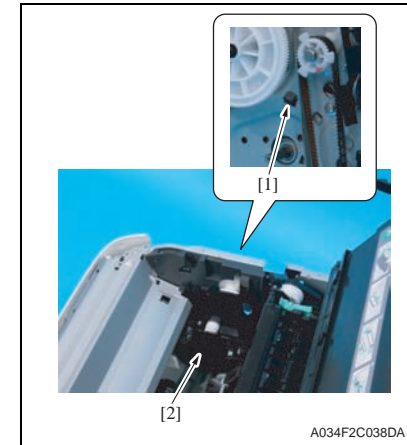
3. Remove the harness from two wire saddles [1].



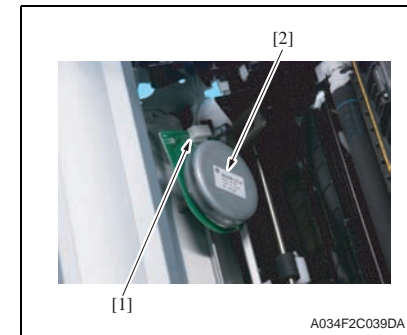
4. Remove three screws [1], and remove the plate [2].



5. Remove three screws [1].
6. Remove the harness [2] from the harness guide.



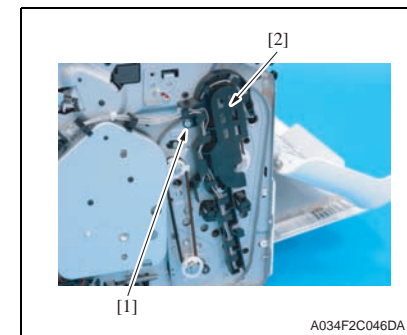
7. Unlock the tab [1], and remove the motor cover [2].



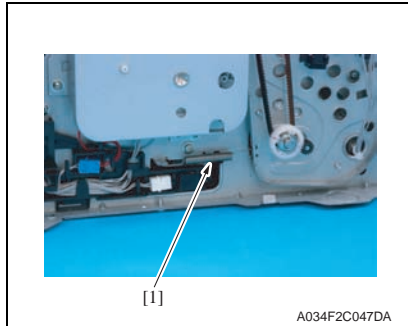
8. Disconnect the connector [1], and remove the transport motor [2].

6.3.21 Developing motor (M3)

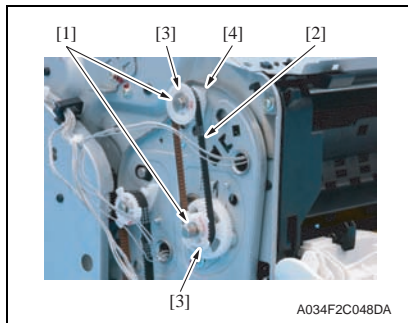
1. Remove the left cover.
[See P.76](#)



2. Remove the screw [1], and remove the harness guide [2] by taking out the harness.



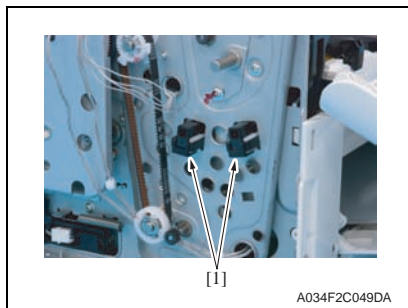
3. Remove the spring [1].



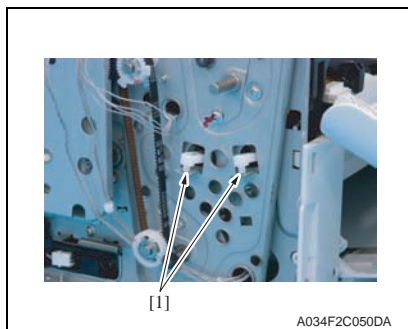
4. Remove two E-rings [1], belt [2], two gears [3] and bearing [4].

NOTE

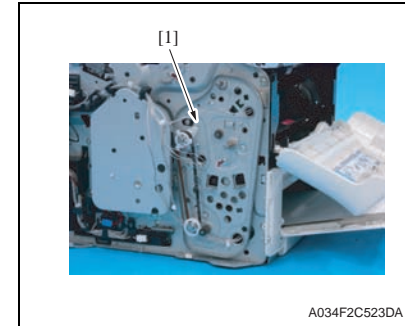
- Make sure to pull out the belt [2] and gears [3] forward parallel together.
- Use care not to lose the shaft.



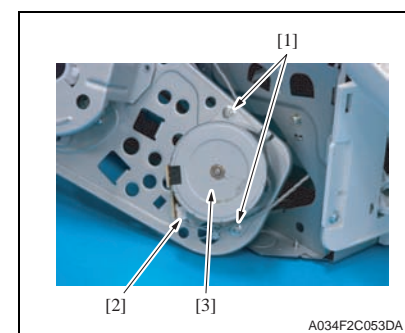
5. Remove two covers [1] by taking out the hooks at both sides.



6. Remove two levers [1].



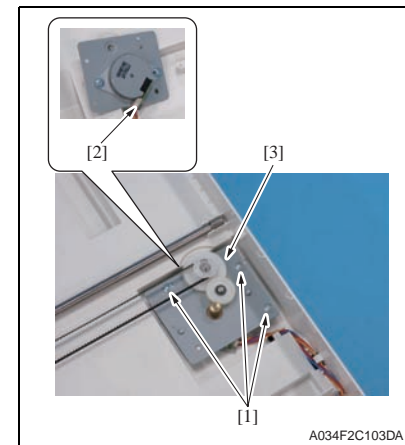
7. Slide out the motor assy [1].



8. Remove two screws [1] and disconnect the connector [2], and remove the developing motor [3].

6.3.22 Scanner motor assy

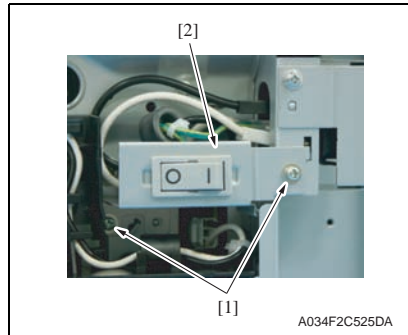
1. Remove the original glass assy.
[See P.77](#)



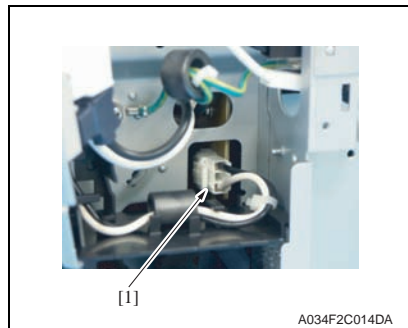
2. Remove three screws [1] and disconnect the connector [2], and remove the scanner motor assy [3].

6.3.23 DC power supply fan motor (FM1)

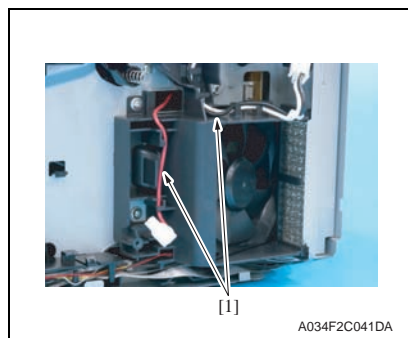
1. Remove the rear cover.
[See P.76](#)
2. Remove the right cover.
[See P.76](#)
3. Remove the high voltage unit.
[See P.82](#)



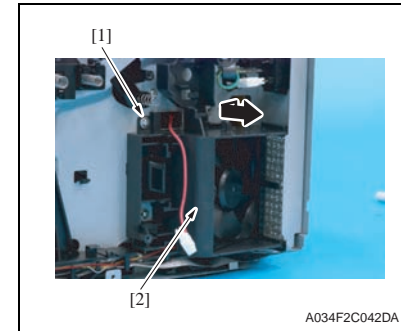
4. Remove two screws [1], and remove the main switch [2].



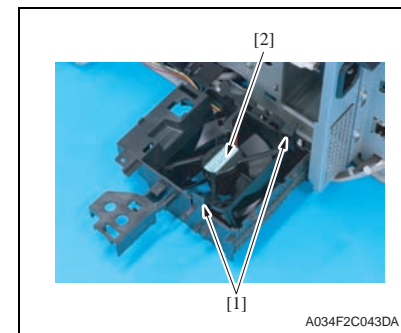
5. Disconnect the connector [1].



6. Remove the harness [1] from the wire saddle.



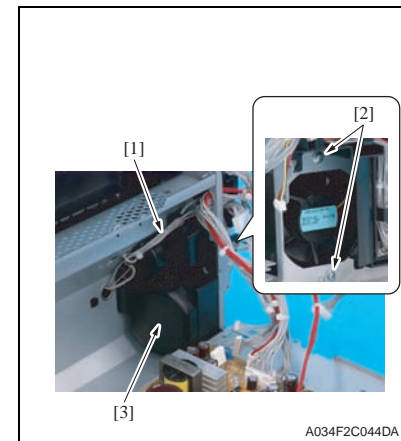
7. Remove the screw [1] to take out the DC power unit motor assembly [2] as shown in the picture.



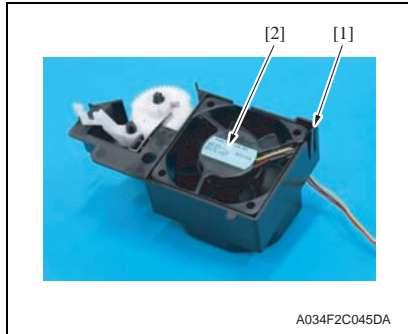
8. Unhook two tabs [1], remove the DC power supply fan motor [2].

6.3.24 Ozone ventilation fan motor (FM2)

1. Slide out the DC power supply assy.
[See step 1 to 9 of P.81](#)



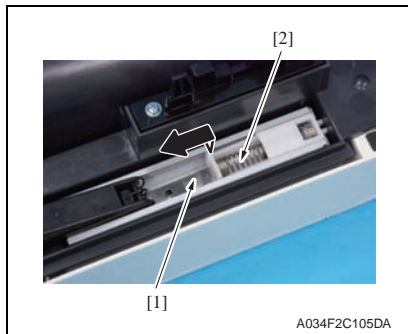
2. Remove the harness [1] from the harness guide.
3. Remove the screw [2], remove the ozone ventilation fan motor assembly [3].



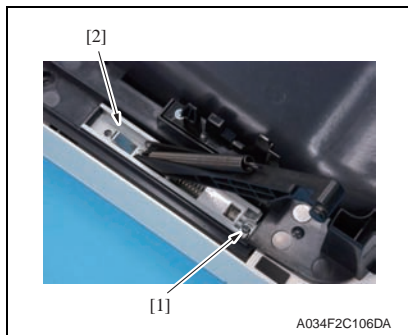
4. Unhook the tab [1], remove the ozone ventilation fan motor [2].

6.3.25 Exit tray cooling fan motor (FM4)

1. Remove the IR unit.
[See P.85](#)
2. Remove the auto document feeder unit.
[See P.87](#)

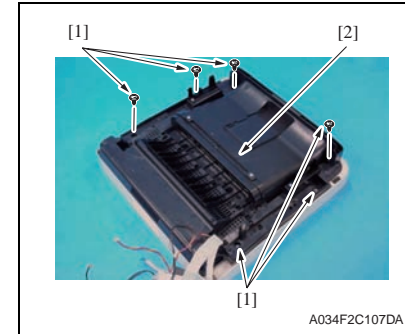


3. While pressing down the plate [1], move the spring assy [2] in the direction of the arrow.

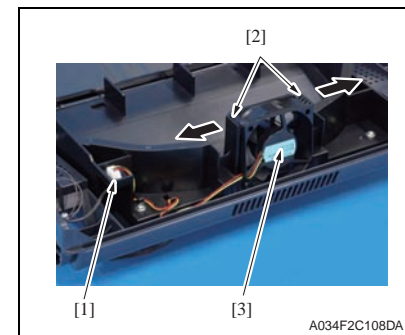


4. Remove the screw [1], and remove the arm unit [2].

5. Repeat the steps 3 and 4 to remove the arm unit located on the opposite side.



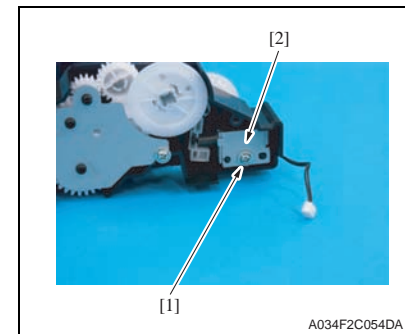
6. Remove six screws [1], and remove the IR unit lower cover assy [2].



7. Remove the connector [1] and move the fixing members [2] in the direction of the arrow to remove the exit tray cooling fan motor [3].

6.3.26 Tray1 media feed solenoid (SD1)

1. Remove the media feed driving unit.
[See P.84](#)



2. Remove the screw [1], and remove the tray1 media feed solenoid [2].

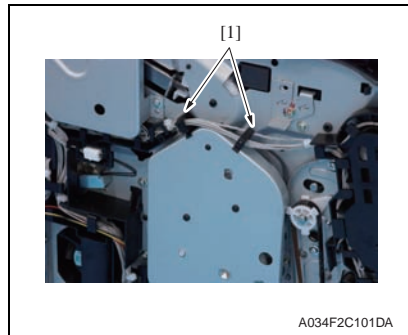
NOTE

- Use care not to lose the two springs.

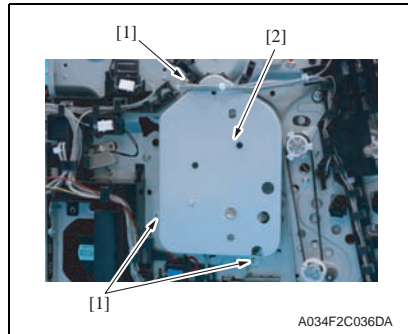
6.3.27 Registration roller solenoid (SD2)

1. Remove the left cover.

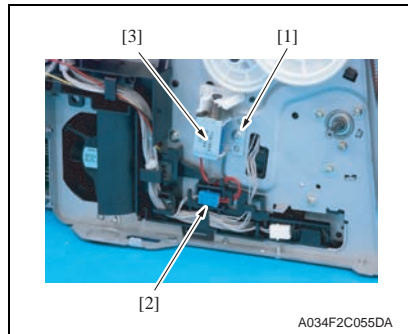
See P.76



2. Remove the harness from two wire saddles [1].



3. Remove three screws [1], and remove the plate [2].



4. Remove the screw [1] and disconnect the connector [2], and remove the registration roller solenoid [3].

NOTE

- Use care not to lose the two springs.

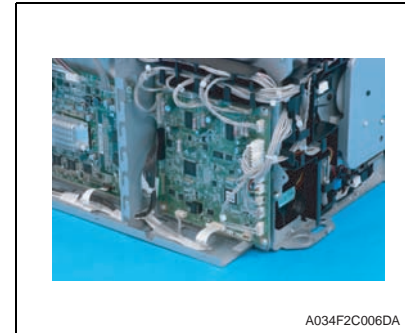
6.3.28 2nd image transfer pressure/retraction solenoid (SD4)

1. Remove the rear cover.

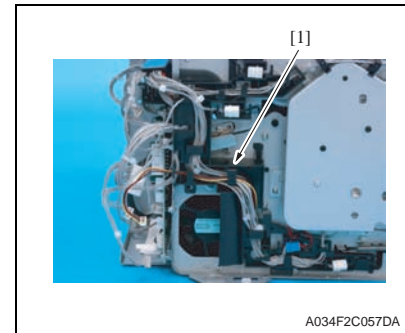
See P.76

2. Remove the left cover.

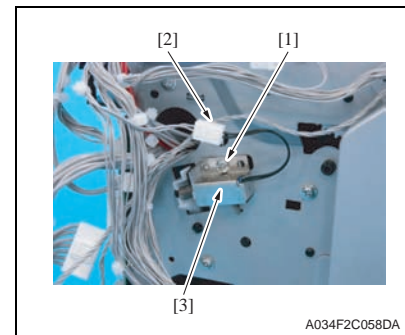
See P.76



3. Disconnect all connectors and flat cables from the printer control board.



4. Remove the harness from the harness guide [1] to remove it.



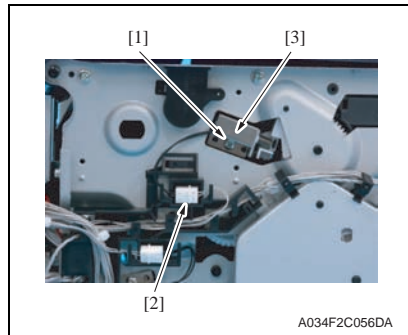
5. Remove the screw [1] and disconnect the connector [2], and remove the 2nd image transfer pressure/retraction solenoid [3].

NOTE

- Use care not to lose the two springs.

6.3.29 Cleaning blade pressure/retraction solenoid (SD5)

1. Remove the left cover.
[See P.76](#)



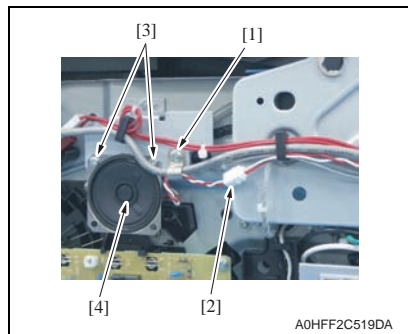
2. Remove the screw [1] and disconnect the connector [2], and remove the cleaning blade pressure/retraction solenoid [3].

NOTE

- Use care not to lose the two springs.

6.3.30 Speaker (SP)

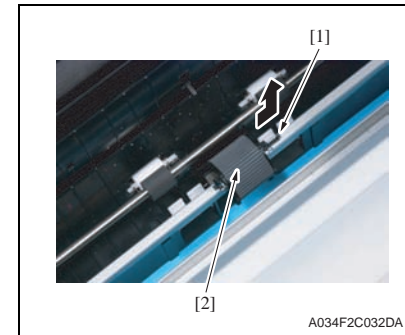
1. Remove the right cover.
[See P.76](#)



2. Remove the screw [1].
3. Disconnect the connector [2] and remove two screws [3], and remove the speaker [4].

6.3.31 Tray 1 media feed roller

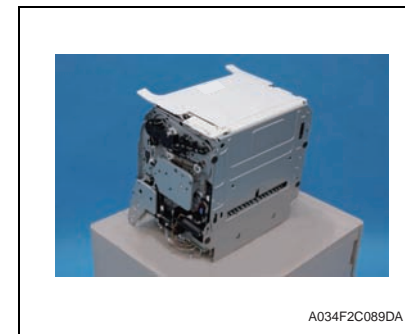
1. Open the top cover.
[See P.71](#)
2. Remove the imaging cartridge.



3. Remove the media feed roller [2] pulling up the hook [1].

6.3.32 Separation pad

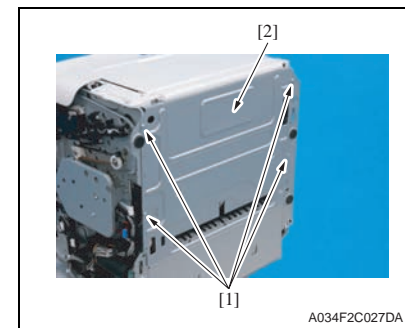
1. Remove the IR unit.
[See P.85](#)



2. Lay the main body of the printer on its back.

NOTE

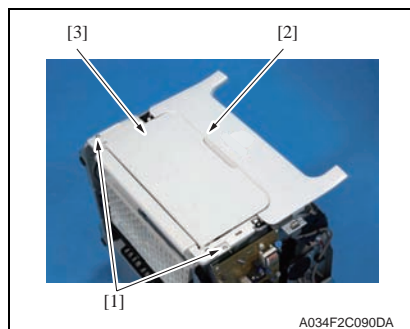
- Put the printer on the flat place such as a desk for this work, not to impose unreasonable force on the machine.



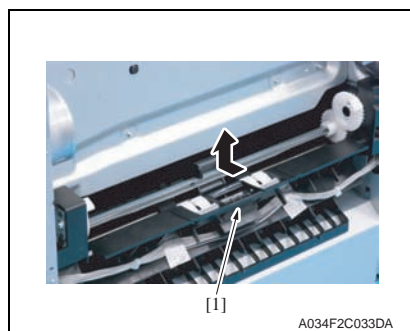
3. Remove four screws [1], and remove the plate [2].

NOTE

- Use care not to lose the two springs.



4. Remove two screws [1] and open the front cover [2] to remove the media feed tray unit [3].



5. Remove the separation pad [1].

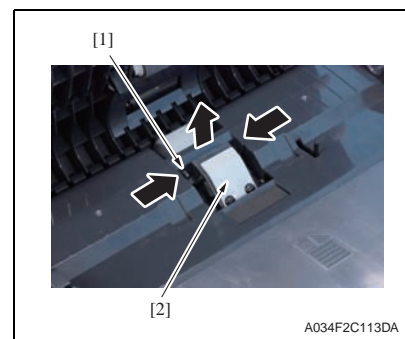


6. Remove the spring [1].

6.3.33 ADF separation pad



1. Open the ADF top cover [1].



2. Unhook the tab [1], and remove the ADF separation pad [2].

6.4 Cleaning procedure

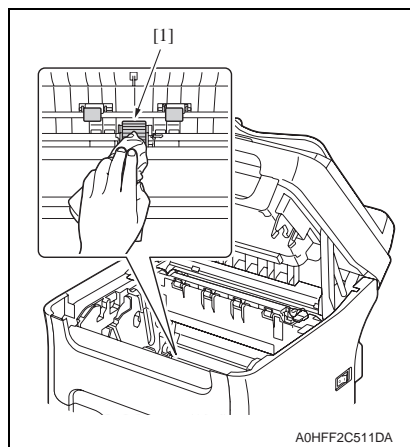
NOTE

- The alcohol described in the cleaning procedure represents the isopropyl alcohol.

6.4.1 Tray 1 media feed roller

1. Open the top cover.
2. Remove the imaging cartridge.

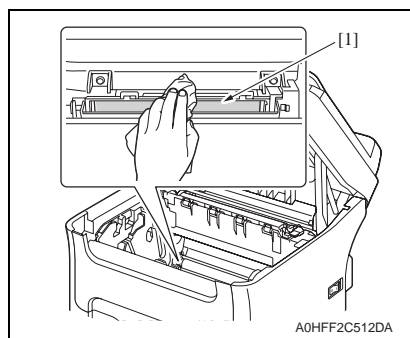
See P.71



3. Using a cleaning pad dampened with alcohol, wipe the tray1 media feed roller [1] clean of dirt.

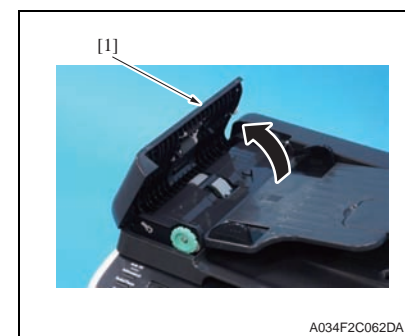
6.4.2 Printer head window

1. Enter the [P/H CLEAN UP] mode.
See P.98
2. Open the top cover.
3. Remove the imaging cartridge.
See P.71

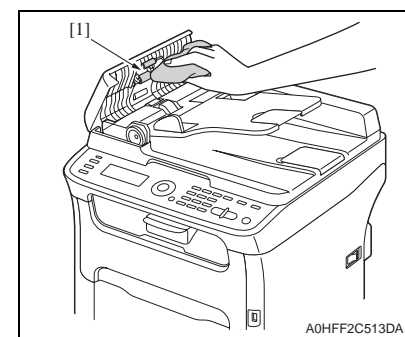


4. Clean P/H window [1] with soft cloth.

6.4.3 ADF media feed roller



1. Open the ADF top cover [1].



2. Clean the media feed rollers by wiping them with a soft, dry cloth.

ADJUSTMENT/SETTING

7. How to use the adjustment section

- “Adjustment/Setting” contains detailed information on the adjustment items and procedures for this machine.
- Throughout this “Adjustment/Setting,” the default settings are indicated by “ ”.

Advance checks

Before attempting to solve the customer problem, the following advance checks must be made. Check to see if:

- The power supply voltage meets the specifications.
- The power supply is properly grounded.
- The machine shares the power supply with any other machine that draws large current intermittently (e.g., elevator and air conditioner that generate electric noise).
- The installation site is environmentally appropriate: high temperature, high humidity, direct sunlight, ventilation, etc.; levelness of the installation site.
- The original has a problem that may cause a defective image.
- The density is properly selected.
- The original glass, slit glass, or related part is dirty.
- Correct media is being used for printing.
- The units, parts, and supplies used for printing (developer, PC drum, etc.) are properly replenished and replaced when they reach the end of their useful service life.
- Toner is not running out.

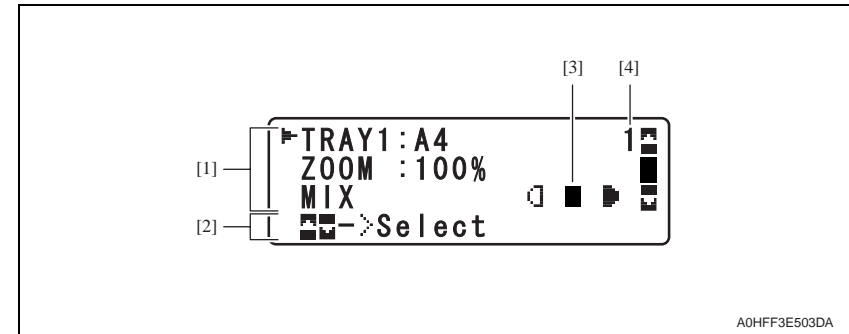
⚠ CAUTION

- **Be sure to unplug the power cord of the machine before starting the service job procedures.**
- **If it is unavoidably necessary to service the machine with its power turned ON, use utmost care not to be caught in the scanner cables or gears of the exposure unit.**
- **Special care should be used when handling the fusing unit which can be extremely hot.**
- **The developing unit has a strong magnetic field. Keep watches and measuring instruments away from it.**
- **Take care not to damage the PC drum with a tool or similar device.**
- **Do not touch IC pins with bare hands.**

8. Description of the control panel

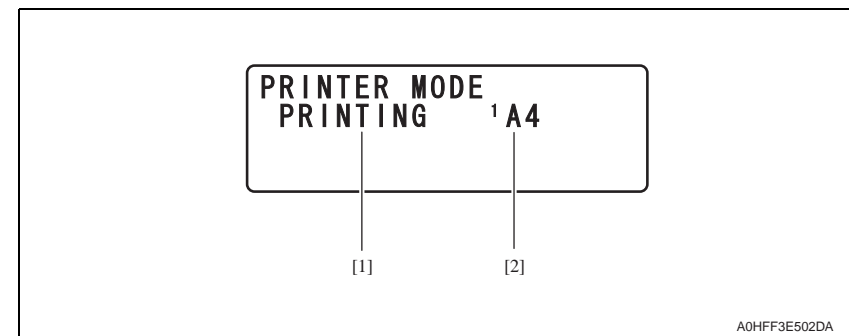
8.1 Control panel display

8.1.1 Copy mode main screen



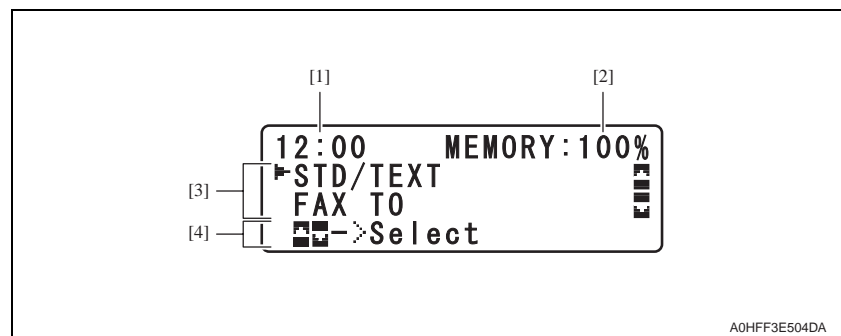
| No. | Name | Description |
|-----|------------------|---|
| [1] | Copy settings | <ul style="list-style-type: none"> • Indicates the media tray and media size that is selected. • Displays the zoom ratio currently set. • Displays the type of the document currently set. |
| [2] | Status | Allows the current settings to be checked and the various settings to be changed. Depending on the situation, the machine status or an error message may appear in the fourth line. |
| [3] | Copy density | Displays the copy density currently set. |
| [4] | Number of copies | Displays the number of copies currently set to be made. |

8.1.2 Print mode main screen



| No. | Name | Description |
|-----|-----------------------|---|
| [1] | Status | Displays messages indicating operations such as printing. |
| [2] | Media tray/media size | Indicates the media tray and media size that is selected. |

8.1.3 FAX mode main screen



| No. | Name | Description |
|-----|------------------|--|
| [1] | Time | Displays the time currently specified with [ADMIN. MANAGEMENT] - [USER SETTING] - [DATE&TIME] in the UTILITY menu. |
| [2] | Available memory | Indicates the percentage of memory available for fax operations. |
| [3] | Fax settings | <ul style="list-style-type: none"> Indicates the fax quality that is selected. Indicates the specified fax destination. Indicates the fax transmission mode that is selected. |
| [4] | Status | Depending on the situation, the machine status or an error message may appear. |

9. PRINTER MODE

9.1 PRINTER MODE function tree

- With the main screen displayed, press the ◀ key to display the [PRINTER MODE] screen.

| PRINTER MODE | | | Ref. page |
|-----------------|----------------|---------|-----------|
| TONER REMAINING | | | P.97 |
| T/C CHANGE | REPLACE MODE | Y TONER | P.97 |
| | | M TONER | |
| | | C TONER | |
| | | K TONER | |
| | EJECT MODE | | P.98 |
| | P/H CLEAN MODE | | P.98 |

9.2 TONER REMAINING

| | |
|--------------------|--|
| Function | <ul style="list-style-type: none"> Displays the amount of toner of each color still available for use. |
| Use | <ul style="list-style-type: none"> For maintenance control of toner cartridges. |
| Setting/ procedure | <ol style="list-style-type: none"> Select [PRINTER MODE] → [TONER REMAINING] and press the Select key to display [TONER REMAINING] screen. Pressing the Stop/Reset key will cause the main screen to reappear. |

9.3 T/C CHANGE

9.3.1 REPLACE MODE

| | |
|--------------------|---|
| Function | <ul style="list-style-type: none"> Moves the specified color of toner cartridge into replacement position, so it can be replaced. |
| Use | <ul style="list-style-type: none"> To replace the specified color of toner cartridge. |
| Setting /procedure | <ol style="list-style-type: none"> Select [PRINTER MODE] → [T/C CHANGE] → [REPLACE MODE] and the specific color of toner to be replaced. Press the Select key. The rack rotates to bring the specified color of toner cartridge to the replacement position. When the rack stops moving, the message [REPLACE MODE CHANGE X TONER] appears on the display. Open the front cover and replace the toner cartridge. Close the front cover. The initial screen will then reappear. |

9.3.2 EJECT MODE

| | |
|--------------------|---|
| Function | <ul style="list-style-type: none"> To remove (or replace) every toner cartridge in order and move the position where the removal is available so that all toner cartridges can be removed (or replaced). |
| Use | <ul style="list-style-type: none"> To remove (or replace) all toner cartridges. |
| Setting /procedure | <ol style="list-style-type: none"> Select [PRINTER MODE] → [T/C CHANGE] → [EJECT MODE] and press the Select key. The rack rotates to bring the first color toner cartridge to the replacement position. When the rack stops moving, the message [EJECT MODE REMOVE M TONER] appears on the display. Open the front cover and remove the magenta toner. (Or replace the magenta toner.) Close the front cover. then, the message [EJECT MODE REMOVE C TONER] appears on the display. Repeating the same steps, remove the remaining toner cartridges. <p>NOTE</p> <ul style="list-style-type: none"> The toner cartridges are to be removed in the order of M → C → K → Y → M. <ol style="list-style-type: none"> Close the top cover. the initial screen will then reappear. |

9.3.3 P/H CLEAN MODE

| | |
|--------------------|---|
| Function | <ul style="list-style-type: none"> To move the toner cartridge (Magenta) to the position where it can be removed so that the printer head window can be cleaned. |
| Use | <ul style="list-style-type: none"> To clean the printer head window. |
| Setting /procedure | <ol style="list-style-type: none"> Select [PRINTER MODE] → [T/C CHANGE] → [P/H CLEAN UP] and press the Select key. The rack rotates to bring the first color toner cartridge to the replacement position. When the rack stops moving, the message [REMOVE M TONER CLOSE COVER] appears on the display. Open the front cover and remove the toner cartridge (M). Close the front cover. When [REMOVE I/C CLEAN GLASS] is displayed, open the top cover and remove the imaging cartridge. Clean the print head window by wiping it with a soft, dry cloth. Close the top cover. When [CLEAN COMPLETE PRESS STOP KEY] is displayed, press the Stop/Reset key. When [INSTALL M TONER CLOSE COVER] is displayed, install the toner cartridge (M) and close the front cover. |

10. REPORT/STATUS mode

10.1 REPORT/STATUS mode function tree

- Press the ▲ and ▼ key to select [REPORT/STATUS], and then press the Select key.

| REPORT/STATUS mode | | Ref. page |
|--------------------|--------------------|-----------|
| TOTAL PRINT | TOTAL PRINT | P.99 |
| | MONO COPY | P.99 |
| | COLOR COPY | P.99 |
| | MONO PRINT | P.99 |
| | COLOR PRINT | P.99 |
| | FAX PRINT | P.99 |
| | TOTAL SCAN | P.99 |
| SUPPLIES STATUS | C TONER | P.99 |
| | M TONER | P.99 |
| | Y TONER | P.99 |
| | K TONER | P.99 |
| | I/C | P.99 |
| TX/RX RESULT | | P.100 |
| REPORT | TX RESULT REPORT | P.100 |
| | RX RESULT REPORT | P.100 |
| | ACTIVITY REPORT | P.100 |
| | MEMORY DATA LIST | P.100 |
| | MEMORY IMAGE PRINT | P.100 |
| | FAVORITE LIST | P.100 |
| | SPEED DIAL LIST | P.100 |
| | GROUP DIAL LIST | P.100 |
| | UTILITY MAP | P.100 |
| | CONFIGURATION PAGE | P.100 |
| | DEMO PAGE | P.102 |

10.2 TOTAL PRINT

- The total number of pages for each of the following can be checked.

10.2.1 TOTAL PRINT

| | |
|----------|---|
| Function | • This counter shows the total number of pages printed. |
| Use | |

10.2.2 MONO COPY

| | |
|----------|---|
| Function | • This counter shows the total number of pages copied in black-and-white. |
| Use | |

10.2.3 COLOR COPY

| | |
|----------|---|
| Function | • This counter shows the total number of pages copied in color. |
| Use | |

10.2.4 MONO PRINT

| | |
|----------|--|
| Function | • This counter shows the total number of pages printed in black-and-white. |
| Use | |

10.2.5 COLOR PRINT

| | |
|----------|--|
| Function | • This counter shows the total number of pages printed in color. |
| Use | |

10.2.6 FAX PRINT

| | |
|----------|---|
| Function | • This counter shows the total number of pages that were faxed. |
| Use | |

10.2.7 TOTAL SCAN

| | |
|----------|--|
| Function | • This counter shows the total number of document pages that were scanned. |
| Use | |

10.3 SUPPLIES STATUS

- The remaining amount of toner in the toner cartridges and the remaining service life of the imaging units can be displayed as a percentage.

10.3.1 C TONER

| | |
|----------|---|
| Function | • Displays the remaining amount of toner in the cyan (C) toner cartridge as a percentage. |
| Use | |

10.3.2 M TONER

| | |
|----------|--|
| Function | • Displays the remaining amount of toner in the magenta (M) toner cartridge as a percentage. |
| Use | |

10.3.3 Y TONER

| | |
|----------|---|
| Function | • Displays the remaining amount of toner in the yellow (Y) toner cartridge as a percentage. |
| Use | |

10.3.4 K TONER

| | |
|----------|--|
| Function | • Displays the remaining amount of toner in the black (K) toner cartridge as a percentage. |
| Use | |

10.3.5 I/C

| | |
|----------|---|
| Function | • Displays the remaining service life of the cyan (C) imaging unit as a percentage. |
| Use | |

10.4 TX/RX RESULT

| | |
|----------|--|
| Function | • The results of a maximum of 60 fax transmissions/receptions can be viewed. |
| Use | • When the Start key is pressed, details of the report displayed in the message window can be printed. |

10.5 REPORT

- The machine settings, lists and reports related to fax can be printed.
1. Press the ▲ and ▼ key to select [REPORT/STATUS], and then press the Select key.
 2. Select [REPORT], and press the Select key.
 3. Press the ▲ and ▼ key to select the desired report, press the Select key, and then Start key.
The report is printed

10.5.1 TX RESULT REPORT

| | |
|----------|--|
| Function | • The [SESSION], [FUNCTION], [NO.], [DESTINATION STATION], [DATE], [TIME], [PAGE], [DURATION], [MODE], and [RESULT] are printed. |
| Use | |

10.5.2 RX RESULT REPORT

| | |
|----------|--|
| Function | • The [SESSION], [FUNCTION], [NO.], [DESTINATION STATION], [DATE], [TIME], [PAGE], [DURATION], [MODE], and [RESULT] are printed. |
| Use | |

10.5.3 ACTIVITY REPORT

| | |
|----------|---|
| Function | • The [NO.], [SESSION], [DATE], [TIME], [TX/RX], [DESTINATION STATION], [PAGE], [DURATION], [MODE], and [RESULT] are printed. |
| Use | |

10.5.4 MEMORY DATA LIST

| | |
|----------|---|
| Function | • This is a list of documents waiting to be sent, and documents specified for timer transmission. |
| Use | • The [SESSION], [FUNCTION], [TIME], [NO.], [DESTINATION STATION], and [PAGE] are printed. |

10.5.5 MEMORY IMAGE PRINT

| | |
|----------|--|
| Function | • A reduced image of the first page of the document waiting to be sent in addition to the [SESSION], [FUNCTION], [NO.], [DESTINATION STATION], [DATE], [TIME], and [PAGE] are printed. |
| Use | |

10.5.6 FAVORITE LIST

| | |
|----------|--|
| Function | • The destinations registered in the favorite list are printed in the order that they appear in the favorite list. |
| Use | |

10.5.7 SPEED DIAL LIST

| | |
|----------|--|
| Function | • The recipients programmed for the speed dial numbers are printed in numerical order. |
| Use | |

10.5.8 GROUP DIAL LIST

| | |
|----------|--|
| Function | • The group dialing settings specified for one-touch dial keys are printed in numerical order of the keys. |
| Use | |

10.5.9 UTILITY MAP

| | |
|----------|---------------------------------------|
| Function | • Prints the current machine setting. |
| Use | |

10.5.10 CONFIGURATION PAGE

| | |
|----------|--|
| Function | • Prints the current machine configuration. |
| Use | It is used to confirm the following settings. <ul style="list-style-type: none"> • Supplies Status • Coverage Information • Counter • Paper • Machine Setting • Network Setting • Firmware Version • Options • Fax Setting • Fax Maintenance |

- Display the estimated percent of life remaining in the toner cartridge and print unit. The type of the toner cartridges that are installed in the printer is also displayed (See the table below).

| No. | | Contents |
|-----|----------------------|---|
| 8 | Replace | Number of times a Standard-capacity toner cartridge (Y) has been replaced |
| 9 | | Rate of transfer roller remaining (%) |
| 10 | | Number of times a transfer roller has been replaced |
| 11 | | Rate of fusing unit remaining (%) |
| 12 | | Number of times a fusing unit has been replaced |
| 13 | | Imaging cartridge consumption |
| 14 | | Number of times a imaging cartridge has been replaced |
| 15 | Machine setting date | Year (e.g. The year 2008 is displayed as 8.) |
| | | Month (e.g. January is displayed as A. February is B. March is C. and December is L.) |
| | | Day (e.g. The day 1 is displayed as 01.) |
| 16 | Application counter | Copy print |
| 17 | | Fax Reception print |
| 18 | | Report output print |
| 19 | | PC Print |
| 20 | | Fax Transmitting pages |
| 21 | | Scan to E-mail |
| 22 | | Scan to FTP |
| 23 | | Scan to SMB |
| 24 | | Scan to USB |
| 25 | | Twain |

10.5.11 DEMO PAGE

| | |
|----------|---|
| Function | • Prints the demo page. |
| Use | NOTE • Demo page only print from Tray1. |

11. UTILITY mode

11.1 UTILITY mode function tree

- A menu is display by select [UTILITY] item on the standby mode.

NOTE

- <*1>: Displayed only when the duplex unit is installed

| UTILITY mode | | | Ref. page | |
|-------------------|-------------------|------------------|-------------|--------|
| MACHINE SETTING | AUTO PANEL RESET | | P.104 | |
| | ENERGY SAVE MODE | | P.104 | |
| | LCD CONTRAST | | P.104 | |
| | KEY SPEED | TIME TO START | P.104 | |
| | | INTERVAL | P.104 | |
| | LANGUAGE | | P.105 | |
| | BUZZER VOLUME | | P.105 | |
| | INITIAL MODE | | P.105 | |
| | TONER OUT STOP | | P.105 | |
| | TONER LOW | | P.105 | |
| | AUTO CONTINUE | | P.105 | |
| | IMAGE REFRESH | | P.105 | |
| | DUPLEX SPEED <*1> | | P.105 | |
| | CALIBRATION | | P.105 | |
| TRAY1 PAPER SETUP | PLAIN PAPER | | P. 106 | |
| | LETTERHEAD | | | |
| | THICK 1 | | | |
| | THICK 2 | | | |
| | LABELS | | | |
| | ENVELOPE | | | |
| | POSTCARD | | | |
| ADMIN. MANAGEMENT | ADMINISTRATOR NO. | | P. 106 | |
| | NETWORKSETTING | TCP/IP | P. 106 | |
| | | IP ADDR. SETTING | | P. 106 |
| | | | SUBNET MASK | P. 107 |
| | | | GATEWAY | P. 107 |
| | | DNS CONFIG. | | P. 107 |
| | | DHCP | | P. 107 |
| | | BOOTP | | P. 107 |
| | | ARP/PING | | P. 107 |
| | | HTTP | | P. 107 |
| | | FTP | | P. 107 |
| | | SMB | | P. 108 |

| UTILITY mode | | | Ref. page | | |
|-----------------------|----------------|-------------------|-----------------------|--------------------|-------|
| | | BONJOUR | P.108 | | |
| | | IPP | P.108 | | |
| | | SLP | P.108 | | |
| | | SNMP | P.108 | | |
| | | SPEED/DUPLEX | P.108 | | |
| | E-MAIL SETTING | SMTP | P.108 | | |
| | | SENDER NAME | P.108 | | |
| | | E-MAIL ADDRESS | P.108 | | |
| | | DEFAULT SUBJECT | P.108 | | |
| | | SMTP SERVER ADDR. | P.108 | | |
| | | SMTP PORT NO. | P.108 | | |
| | | SMTP TIMEOUT | P.109 | | |
| | | TEXT INSERT | P.109 | | |
| | | POP BEFORE SMTP | DISABLE/ ENABLE | P.109 | |
| | | | POP3 SERV- ERADDR. | P.109 | |
| | | | POP3 PORT NO. | P.109 | |
| | | | POP3 TIMEOUT | P.109 | |
| | | | POP3 ACCOUNT | P.109 | |
| | | POP3 PASSWORD | POP3 PASSWORD | P.109 | |
| | | | SMTP AUTH. | DISABLE/ ENABLE | P.109 |
| | | | | SMTP USER NAME | P.109 |
| | | SMTP PASSWORD | | P.109 | |
| | LDAP SETTING | DISABLE/ENABLE | | P.110 | |
| | | LDAP SERVER ADDR. | | P.110 | |
| | | LDAP PORT NO. | | P.110 | |
| | | SSL SETTING | | P.110 | |
| | | SEARCH BASE | | P.110 | |
| | | ATTRIBUTE | | P.110 | |
| | | SEARCH METHOD | | P.110 | |
| | | LDAP TIMEOUT | | P.110 | |
| MAX. SEARCH RESULTS | | P.110 | | | |
| AUTHENTICATION METHOD | | P.110 | | | |
| LDAP ACCOUNT | | P.110 | | | |
| LDAP PASSWORD | | P.111 | | | |
| DOMAIN NAME | | P.111 | | | |

| UTILITY mode | | | Ref. page |
|------------------|------------------|---------------------|--------------|
| | USB SETTING | | P.111 |
| | COMM. SETTING | TONE/PULSE | P.111 |
| | | LINE MONITOR VOLUME | P.111 |
| | | PSTN/PBX | P.111 |
| | USER SETTING | PTT SETTING | P.111 |
| | | DATE&TIME | P.111 |
| | | DATE FORMAT | P.111 |
| | | PRESET ZOOM | P.112 |
| | | USER FAX NUMBER | P.112 |
| | | USER NAME | P.112 |
| | AUTO REDIAL | NUMBER OF REDIAL | P.112 |
| | | INTERVAL | P.112 |
| COPY SETTING | PAPER PRIORITY | | P.112 |
| | QUALITY PRIORITY | | P.112 |
| | DENSITY PRIORITY | | P.112 |
| | DENSITY LEVEL | AUTO | P.112 |
| | | MANUAL | P.112 |
| | OUTPUT PRIORITY | | P.113 |
| DIAL REGISTER | DUPLEX COPY | | P.113 |
| | FAVORITE | | P.113 |
| | SPEED DIAL | | P.113 |
| FAX TX OPERATION | GROUP DIAL | | P.113 |
| | DENSITY LEV EL | | P.113 |
| | QUALITY PRIORITY | | P.113 |
| FAX RX OPERATION | DEFULT TX | | P.113 |
| | HEADER | | P.114 |
| | MEMORY RX MODE | | P.114 |
| | NO. of RINGS | | P.114 |
| | REDUCTION RX | | P.114 |
| | RX PRINT | | P.117 |
| | RX MODE | | P.117 |
| | FORWARD | | P.117 |
| REPORTING | FOOTER | | P.117 |
| | SELECT TRAY | | P.118 |
| | ACTIV ITY REPORT | | P.118 |
| | TX RESULT REPORT | | P.118 |
| | RX RESULT REPORT | | P.118 |

| UTILITY mode | | Ref. page |
|--------------|------------------|--------------|
| SCAN SETTING | RESOLUTION | P.118 |
| | IMAGE FORMAT | P.118 |
| | CODING METHOD | P.118 |
| | FILE SIZE | P.118 |
| | QUALITY PRIORITY | P.118 |
| | DENSITY LEVEL | P.119 |

11.2 MACHINE SETTING


11.2.1 AUTO PANEL RESET

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> Sets the period of time after which the initial screen reappears after the last print job is received or the last panel key is operated. |
| Use | <ul style="list-style-type: none"> To set the period of time by executing auto panel reset. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is 1 min. <p>OFF / 30sec / "1min" / 2min / 3min / 4min / 5min</p> |

11.2.2 ENERGY SAVE MODE

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> To specify the time until the machine enters energy save mode after a copy cycle has been completed or after the last key operation. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is 30 min. <p>5min / 15min / "30min" / 60min</p> |

11.2.3 LCD CONTRAST

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Sets the brightness of the LCD display. |
| Use | <ul style="list-style-type: none"> To set the brightness of the LCD display. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is  . <p>(LIGHT) -1 / "0" / +1 / +2 (DARK)</p> |

11.2.4 KEY SPEED

A. TIME TO START

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> To specify the length of time until the cursor begins to move continuously when a key is held down. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is 1.0sec. <p>0.1sec / 0.3sec / 0.5sec / "1.0sec" / 1.5sec / 2.0sec / 2.5sec / 3.0sec</p> |

B. INTERVAL

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> To specify the length of time until the cursor continuously moves between settings or characters. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is 0.1sec. <p>"0.1sec" / 0.3sec / 0.5sec / 1.0sec / 1.5sec / 2.0sec / 2.5sec / 3.0sec</p> |

11.2.5 LANGUAGE

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Sets the language of the control panel display. |
| Use | <ul style="list-style-type: none"> To change the language of the control panel display. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is ENGLISH. <p>“ENGLISH” / FRENCH / GERMAN / ITALIAN / SPANISH / PORTUGUESE RUSSIAN / CZECH / SLOVAK / HUNGARIAN / POLISH / JAPANESE</p> <p>NOTE</p> <ul style="list-style-type: none"> The default setting of language is subject to the setting of [PTT SETTING]. |

11.2.6 BUZZER VOLUME

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> To set the volume of alarms and the beep sounded when a key is pressed. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is LOW. <p>OFF / “LOW” / HIGH</p> |

11.2.7 INITIAL MODE

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> To set the mode (Copy mode or Fax mode) that the machine starts up in or returns to after the Control Panel is reset. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is COPY. <p>“COPY” / FAX</p> |

11.2.8 TONER OUT STOP

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Specifies whether to stop or continue printing when a toner empty condition is detected. |
| Use | <ul style="list-style-type: none"> To permit printing upon a toner empty condition. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is ON. <p>“ON” / OFF</p> <p>NOTE</p> <ul style="list-style-type: none"> If [ON] is selected, printing, copying and faxing stop when the toner runs out. |

11.2.9 TONER LOW

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> To set whether to display a message when a toner near empty state is detected. |
| Use | <ul style="list-style-type: none"> Use this setting to display a message when a toner near empty state is detected. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is ON. <p>“ON” / OFF</p> |

11.2.10 AUTO CONTINUE

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Select whether or not printing continues when a size error occurs during printing. |
| Use | <ul style="list-style-type: none"> If [OFF] is selected, an error occurs if the size of paper being printed on is different from the size of paper specified in the printer driver. If [ON] is selected, no error occurs if the size of paper being printed on is different from the size of paper specified in the printer driver. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is OFF. <p>ON / “OFF”</p> |

11.2.11 IMAGE REFRESH

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Use this function to perform aging of the toner cartridge, thereby making less noticeable the faint lines extending in parallel with the main scanning direction occurring at a pitch of 24 mm. <p>NOTE</p> <ul style="list-style-type: none"> Execution of the image refresh mode consumes toner. This function does not help uneven density at a pitch of 25 mm. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is OFF. <p>ON / “OFF”</p> |

11.2.12 DUPLEX SPEED

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> To set print speed and image quality for duplex printing. |
| Use | <ul style="list-style-type: none"> If AUTOMATIC is selected, the print speed is automatically selected. If SPEED is selected, the print speed has priority; however, the print quality may decrease. If QUALITY is selected, the print quality has priority; therefore, the print speed will decrease while the print quality may increase. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is AUTOMATIC. <p>“AUTOMATIC” / SPEED / QUALITY</p> |

11.2.13 CALIBRATION

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> Executes the image stabilization sequence. |
| Use | <ul style="list-style-type: none"> To calibrate the engine when there are print image quality problems. To calibrate the engine when the imaging cartridge and 2nd transfer roller are replaced with new ones. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is OFF. <p>ON / “OFF”</p> <ol style="list-style-type: none"> 1. Select [MACHINE SETTING] and then [CALIBRATION], and press the Select key. 2. Select [ON] and press the Select key. 3. Image stabilization is executed. |

11.3 TRAY1 PAPER SETUP

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Sets the type and size of the paper loaded in tray1. |
| Use | <ul style="list-style-type: none"> When the type and size of the paper loaded in tray1 have been changed The default setting varies according to the voltage of the printer. |
| Setting/ procedure | <p>TRAY1 PAPER TYPE</p> <ul style="list-style-type: none"> The default setting is PLAIN PAPER. <p>"PLAIN PAPER" / LETTERHEAD / THICK 1 / THICK 2 / LABELS / ENVELOPE / POSTCARD</p> <p>TRAY1 PAPER SIZE</p> <ul style="list-style-type: none"> Default setting of paper size depend on the marketing area setting. USA and Canada: "LETTER", Other country: "A4" <p><PLAIN PAPER> "A4" / B5 / A5 / LEGAL / "LETTER" / G LETTER / STATEMENT / EXECUTIVE / FOLIO / OFICIO / G LEGAL / CUSTOM(PLAIN)</p> <p>NOTE</p> <ul style="list-style-type: none"> If [CUSTOM (PLAIN)] is selected as the paper size, specify settings for LENGTH (195 to 356 mm) and WIDTH (92 to 216 mm) separately. <p><LETTERHEAD> "A4" / B5 / A5 / "LETTER" / G LETTER / STATEMENT / EXECUTIVE</p> <p><THICK 1, THICK 2> "A4" / B5 / A5 / "LETTER" / G LETTER / STATEMENT / EXECUTIVE / CUSTOM(THICK)</p> <p>NOTE</p> <ul style="list-style-type: none"> If [CUSTOM (THICK)] is selected as the paper size, specify settings for LENGTH (184 to 294 mm) and WIDTH (92 to 216 mm) separately. <p><LABELS> "A4" / B5 / A5 / "LETTER" / G LETTER / STATEMENT / EXECUTIVE</p> <p><ENVELOPE> "C6" / DL</p> <p><POSTCARD> "J-POSTCARD"</p> |

11.4 ADMIN. MANAGEMENT

- The ADMIN. MANAGEMENT menu is accessible only by the administrator.
To display the settings for this menu, select [ADMIN. MANAGEMENT], use the keypad to type in the 6-digit administrator access code, and then press the Select key.

11.4.1 ADMINISTRATOR NO.

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> Use to change the ADMINISTRATOR NO. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is 000000. <ol style="list-style-type: none"> Select [ADMINISTRATOR NO.] and press the Select key. Enter the existing 6-digit administrator number and press the Select key. Enter the new 6-digit administrator number and press the Select key. |

11.4.2 NETWORK SETTING

A. TCP/IP

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Enables TCP/IP |
| Use | <ul style="list-style-type: none"> To specify that the printer is connected to a TCP/IP network. ENABLE: Print can be made at TCP/IP environment. DISABLE: Print cannot be made at TCP/IP environment. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is ENABLE. <p>DISABLE / "ENABLE"</p> |

B. IP ADDR. SETTING

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Sets the IP address of the printer used for the network. |
| Use | <ul style="list-style-type: none"> To set the printer's IP address. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is AUTO. <p>"AUTO" / SPECIFY</p> <ul style="list-style-type: none"> If AUTO is selected, the IP address is automatically acquired from the DHCP server. <p>NOTE</p> <ul style="list-style-type: none"> AUTO is only enabled if there is a DHCP server available on the network. When AUTO is selected, there is no need to set the SUBNET MASK or GATEWAY setting. If SPECIFY is selected, the screen for entering the IP address appears. |

(1) SUBNET MASK

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> This function is used to specify the subnet mask value for the network. |
| Use | NOTE <ul style="list-style-type: none"> Please consult customer's network administrator for information about the subnet mask to use. |
| Setting/ procedure | <ul style="list-style-type: none"> Setting LAN connect to WAN the net mask address. NOTE <ul style="list-style-type: none"> If Auto is selected for [IP ADDR. SETTING], the items of [SUBNET MASK] and [GATEWAY] are automatically set. Key entry is therefore disabled for [SUBNET MASK] and [GATEWAY]. |

(2) GATEWAY

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> This function is used to specify the default gateway (IP address) of a router on the network. |
| Use | NOTE <ul style="list-style-type: none"> Please consult customer's network administrator for information about the gateway to use. |
| Setting/ procedure | <ul style="list-style-type: none"> Setting LAN address. NOTE <ul style="list-style-type: none"> If Auto is selected for [IP ADDR. SETTING], the items of [SUBNET MASK] and [GATEWAY] are automatically set. Key entry is therefore disabled for [SUBNET MASK] and [GATEWAY]. |

C. DNS CONFIG.

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> Sets whether or not the DNS server setting is to be specified. |
| Use | <ul style="list-style-type: none"> If specifying the DNS server setting, the SMTP server can be specified as a host name when using network scanning. If [ENABLE] is selected, type in the IP address of the DNS server. If [DISABLE] is selected, the DNS server cannot be referenced. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is DISABLE. <p style="text-align: center;">"DISABLE" / ENABLE</p> |

(1) ENABLE

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Sets the DNS server address (up to three addresses). |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is 0.0.0.0. <p style="text-align: center;">DNS1 / DNS2 / DNS3</p> |

D. DHCP

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Automatically acquires an IP address from the DHCP server, if there is one in the network, and specifies whether to load other network information. |
| Use | <ul style="list-style-type: none"> To automatically acquire an IP address and load other network information. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is ENABLE. <p style="text-align: center;">DISABLE / "ENABLE"</p> NOTE <ul style="list-style-type: none"> When setting the IP address manually, the [DHCP] setting is changed to [DISABLE]. |

E. BOOTP

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Automatically acquires an IP address from BOOTP and specifies whether to load other network information. |
| Use | <ul style="list-style-type: none"> To automatically acquire an IP address and load other network information. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is DISABLE. <p style="text-align: center;">"DISABLE" / ENABLE</p> NOTE <ul style="list-style-type: none"> When setting the IP address manually, the [BOOTP] setting is changed to [DISABLE]. |

F. ARP/PING

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> Automatically acquires an IP address from ARP/PING and specifies whether to load other network information. |
| Use | <ul style="list-style-type: none"> To automatically acquire an IP address and load other network information. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is DISABLE. <p style="text-align: center;">"DISABLE" / ENABLE</p> NOTE <ul style="list-style-type: none"> When setting the IP address manually, the [ARP/PING] setting is changed to [DISABLE]. |

G. HTTP

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> Select whether or not to enable HTTP. |
| Use | <ul style="list-style-type: none"> If [ENABLE] is selected, HTTP is enabled. If [DISABLE] is selected, HTTP is disabled. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is ENABLE. <p style="text-align: center;">DISABLE / "ENABLE"</p> |

H. FTP

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> Select whether or not to enable the FTP server. |
| Use | <ul style="list-style-type: none"> If [ENABLE] is selected, FTP server is enabled. If [DISABLE] is selected, FTP server is disabled. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is ENABLE. <p style="text-align: center;">DISABLE / "ENABLE"</p> |

I. SMB

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> Select whether or not to enable SMB. |
| Use | <ul style="list-style-type: none"> If [ENABLE] is selected, SMB is enabled. If [DISABLE] is selected, SMB is disabled. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is ENABLE. <p style="text-align: right;">DISABLE / "ENABLE"</p> |

J. BONJOUR

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> Select whether or not to use the bonjour setting. |
| Use | <ul style="list-style-type: none"> To use when operating under the bonjour service environment. If [ENABLE] is selected, Bonjour is enabled. If [DISABLE] is selected, Bonjour is disabled. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is ENABLE. <p style="text-align: right;">DISABLE / "ENABLE"</p> |

K. IPP

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> Select whether or not to enable IPP. |
| Use | <ul style="list-style-type: none"> If [ENABLE] is selected, IPP is enabled. If [DISABLE] is selected, IPP is disabled. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is ENABLE. <p style="text-align: right;">DISABLE / "ENABLE"</p> |

L. SLP

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> Select whether or not to enable SLP. |
| Use | <ul style="list-style-type: none"> If [ENABLE] is selected, SLP is enabled. If [DISABLE] is selected, SLP is disabled. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is ENABLE. <p style="text-align: right;">DISABLE / "ENABLE"</p> |

M. SNMP

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> Select whether or not to enable SNMP. |
| Use | <ul style="list-style-type: none"> If [ENABLE] is selected, SNMP is enabled. If [DISABLE] is selected, SNMP is disabled. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is ENABLE. <p style="text-align: right;">DISABLE / "ENABLE"</p> |

N. SPEED/DUPLEX

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Sets the communication speed and method of network. |
| Use | <ul style="list-style-type: none"> To set the network communication speed and method. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is AUTO. <p style="text-align: right;">"AUTO" / 10BASE-T FULL / 10BASE-T HALF / 100BASE-TX FULL / 100BASE-TX HALF</p> |

11.4.3 E-MAIL SETTING**A. SMTP**

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> Select whether or not to enable SMTP. |
| Use | <ul style="list-style-type: none"> If [ENABLE] is selected, SMTP is enabled. If [DISABLE] is selected, SMTP is disabled. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is ENABLE. <p style="text-align: right;">DISABLE / "ENABLE"</p> |

B. SENDER NAME

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> This function is used to specify the sender's name. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is OKI-MC160n. Up to 20 characters can be entered for the sender name. |

C. E-MAIL ADDRESS

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> This function is used to specify the e-mail address of the sender. |
| Use | NOTE <ul style="list-style-type: none"> Please consult customer's network administrator for information about the e-mail address to use. |
| Setting/ procedure | <ul style="list-style-type: none"> Up to 64 characters can be entered for the sender address. If customer does not receive e-mail on the copier, enter the e-mail address of the customer's administrator. |

D. DEFAULT SUBJECT

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> This function is used to specify the default subject line, when sending scan data as an e-mail attachment. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is from From OKI-MC160n. Up to 20 characters can be entered for the default subject. |

E. SMTP SERVER ADDR.

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> This function is used to enter the IP address or host name of an SMTP server. |
| Use | NOTE <ul style="list-style-type: none"> Please consult customer's network administrator for information about the IP address to use. |
| Setting/ procedure | <ul style="list-style-type: none"> Up to 64 characters can be entered for the host name. The DNS settings must have been specified before specifying the host name for the SMTP server. |

F. SMTP PORT NO.

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> This function is used to enter the port number (1 to 65535) for the SMTP server. |
| Use | NOTE <ul style="list-style-type: none"> Please consult customer's network administrator for information about the port number to use. |
| Setting/ procedure | <ul style="list-style-type: none"> The port number can be set between 1 and 65535. Normally, port number 25 is used. |

G. SMTP TIMEOUT

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> This function is used to specify the length of time (in seconds) before the connection to the SMTP server times out. (30 to 300 seconds) |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is 60sec. The time out period can be between 30 and 300 seconds. |

H. TEXT INSERT

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> This function is used to specify whether or not to insert text explaining that an image has been attached to an e-mail message, when sending scan data as an E-mail attachment. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is OFF. <p style="text-align: center;">"OFF" / ON</p> <ul style="list-style-type: none"> OFF: If OFF is selected, a blank e-mail message will be sent. ON: If ON is selected, the following text is inserted in the e-mail message. |

I. POP BEFORE SMTP**(1) DISABLE/ENABLE**

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> This function is used to set whether or not to use POP before SMTP. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is DISABLE. <p style="text-align: center;">"DISABLE" / ENABLE</p> <ul style="list-style-type: none"> When [ENABLE] is selected, set the time (second) for POP BEFORE SMTP. The default setting is "5sec". (0 - 60sec) |

(2) POP3 SERVER ADDR.

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> This function is used to enter the IP address or host name of an POP3 server. |
| Use | |
| Setting/ procedure | <p>NOTE</p> <ul style="list-style-type: none"> Please consult customer's network administrator for information about the IP address to use. The [DNS] must have been specified before specifying the host name for the POP3 server. <ul style="list-style-type: none"> Up to 64 characters can be entered for the host name. |

(3) POP3 PORT NO.

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> This function is used to enter the port number for the POP3 server. |
| Use | |
| Setting/ procedure | <p>NOTE</p> <ul style="list-style-type: none"> Please consult customer's network administrator for information about the port number to use. <ul style="list-style-type: none"> The default setting is "110". (1 - 65535) |

(4) POP3 TIMEOUT

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> This function is used to specify the length of time (in seconds) before the connection to the POP3 server times out. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is "30sec". (30 - 300sec) |

(5) POP3 ACCOUNT

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> This function is used to enter the account name used to log on to the POP3 server. |
| Use | |
| Setting/ procedure | <p>NOTE</p> <ul style="list-style-type: none"> Please consult customer's network administrator for information about the account name to use. <ul style="list-style-type: none"> Up to 64 characters can be entered for the account name. |

(6) POP3 PASSWORD

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> This function is used to enter the password associated with the account name used to log in to the POP3 server. |
| Use | |
| Setting/ procedure | <p>NOTE</p> <ul style="list-style-type: none"> Please consult customer's network administrator for information about the password to use. <ul style="list-style-type: none"> Up to 32 characters can be entered for the password. |

J. SMTP AUTH.**(1) DISABLE/ENABLE**

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> If [ENABLE] is selected, SMTP Authentication is enabled. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is DISABLE. <p style="text-align: center;">"DISABLE" / ENABLE</p> |

(2) SMTP USER NAME

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Type in the user name used for authentication with SMTP Authentication. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is Blank. Up to 63 characters can be entered for the SMTP user name. |

(3) SMTP PASSWORD

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Type in the password used for authentication with SMTP Authentication. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is Blank. Up to 15 characters can be entered for the password. |

11.4.4 LDAP SETTING**A. DISABLE/ENABLE**

| | |
|-----------------------|--|
| Function | • This function is used to set whether or not to use LDAP. |
| Use | |
| Setting/ procedure | • The default setting is ENABLE. DISABLE / "ENABLE" |

B. LDAP SERVER ADDR.

| | |
|-----------------------|---|
| Function | • To set the LDAP server address. |
| Use | • To enter LDAP server address. |
| Setting/ procedure | • The default setting is 0.0.0.0. 1. Select the [LDAP SERVER ADDR.], then press Select key. 2. Type in the IP address or host name for the LDAP server, then press Select key. • The host name can contain a maximum of 64 characters. |

C. LDAP PORT NO.

| | |
|-----------------------|--|
| Function | • To set the LDAP server port number. |
| Use | • To enter the LDAP server port number. |
| Setting/ procedure | • When SSL Setting is disable, the default value is 389. • When SSL Setting is enable, the default value is 636. 1. Select the [LDAP PORT NO.], then press Select key. 2. Type in the port number (1 - 65535), then press Select key. |

D. SSL SETTING

| | |
|-----------------------|--|
| Function | • To set whether to use SSL (data encryption) for connecting to LDAP server. |
| Use | • To use SSL (data encryption) for connecting to LDAP server. |
| Setting/ procedure | • The default setting is DISABLE. "DISABLE" / ENABLE |

E. SEARCH BASE

| | |
|-----------------------|---|
| Function | • To set the directory path for LDAP server. |
| Use | • To enter the directory path for LDAP server. |
| Setting/ procedure | 1. Select the [SEARCH BASE], then press Select key. 2. Specify the database where the LDAP server is searched, then press Select key. • The search base can contain a maximum of 64 characters. |

F. ATTRIBUTE

| | |
|-----------------------|--|
| Function | • To set a search attribute that is used to search a destination from LDAP server. |
| Use | • To enter a search attribute that is used to search a destination from LDAP server. |
| Setting/ procedure | 1. Select the [ATTRIBUTE], then press Select key. 2. Type in the attribute, then press Select key. • The attribute can contain a maximum of 32 characters. |

G. SEARCH METHOD

| | |
|-----------------------|---|
| Function | • To set a search method that is used to search a destination. |
| Use | • To change a search method that is used to search a destination. |
| Setting/ procedure | • The default setting is CONTAIN. BEGIN / "CONTAIN" / END |

H. LDAP TIMEOUT

| | |
|-----------------------|---|
| Function | • To set the Max. time-out period for LDAP search. |
| Use | • To change the Max. time-out period for LDAP search. |
| Setting/ procedure | • The default setting is 60 sec. (5 - 300 sec.) 1. Select the [LDAP TIMEOUT], then press Select key. 2. Type in the length of time (in seconds) until the LDAP search times out, then press Select key. |

I. MAX. SEARCH RESULTS

| | |
|-----------------------|---|
| Function | • To set the Max. results of address for LDAP search. |
| Use | • To change the Max. results of address for LDAP search. |
| Setting/ procedure | • The default setting is 100 (5 - 100) 1. Select the [MAX. SEARCH RESULTS], then press Select key. 2. Type in the maximum number of items, then press Select key. |

J. AUTHENTICATION

| | |
|-----------------------|--|
| Function | • To set the authentication method to logon to LDAP server. |
| Use | • To change the authentication method to logon to LDAP server. [ANONYMOUS]: User name and password are not necessary (Dynamic authentication will be invalid when anonymous is selected.) [SIMPLE]: Simple method which needs the user name and the password [DIGEST-MD5]: Method available with normal LDAP server. When failing to authenticate with Digest-MD5, it automatically switches to CRAMMD5. [GSS-SPNEGO]: Method available with Windows active directory (Kerberos authentication). |
| Setting/ procedure | • The default setting is ANONYMOUS. "ANONYMOUS" / SIMPLE / DIGEST-MD5 / GSS-SPNEGO |

K. LDAP ACCOUNT

| | |
|-----------------------|---|
| Function | • To set the account name to connect to LDAP server. |
| Use | • To set the account name to connect to LDAP server. |
| Setting/ procedure | 1. Select the [LDAP ACCOUNT], then press Select key. 2. Type in the account name for the LDAP server, then press Select key. • The account name can contain a maximum of 64 characters. |

L. LDAP PASSWORD

| | |
|-----------------------|--|
| Function | • To set the password for connecting to LDAP server. |
| Use | • To set the password for connecting to LDAP server. |
| Setting/ procedure | 1. Select the [LDAP PASSWORD], then press Select key. 2. Type in the password, then press Select key. • The password can contain a maximum of 32 characters. |

M. DOMAIN NAME

| | |
|-----------------------|--|
| Function | • To set the domain name for connecting to LDAP server. |
| Use | • To set the domain name for connecting to LDAP server. |
| Setting/ procedure | 1. Select the [DOMAIN NAME], then press Select key. 2. Type in the domain name, then press Select key. • The domain name can contain a maximum of 64 characters. |

11.4.5 USB SETTING

| | |
|-----------------------|--|
| Function | • To set the operating system of the PC to which this machine is connected with a USB cable. |
| Use | |
| Setting/ procedure | • The default setting is Windows. "Windows" / Mac |

11.4.6 COMM. SETTING**A. TONE/PULSE**

| | |
|-----------------------|--|
| Function | • This function can be used to specify the dialing system. If this function is not correctly set to the type of dialing system used, faxes cannot be sent. Select the correct setting after checking which type of dialing system is used by your telephone line. |
| Use | • There are two types of telephone dialing systems: tone dialing (PB) and pulse dialing (DP10pps or DP20pps). Faxes cannot be sent if this machine is not set to the system used by your telephone line. Select the correct setting after checking which type of dialing system is used. NOTE • If [PTT SETTING] in the [USER SETTING] menu is set to U.S.A, CANADA or NEW ZEALAND, the settings cannot be changed. |
| Setting/ procedure | • The default setting is TONE. "TONE": Tone line PULSE 10pps: Pulse line of 10 pps PULSE 20pps: Pulse line of 20 pps |

B. LINE MONITOR

| | |
|-----------------------|--|
| Function | • This function can be used to set the volume when monitoring communication to [HIGH], [LOW] or [OFF]. |
| Use | |
| Setting/ procedure | • The default setting is LOW. OFF / "LOW" / HIGH |

C. PSTN/PBX

| | |
|-----------------------|--|
| Function | • This function can be used to set whether the connected telephone wiring is a public switched telephone network (PSTN) or a private branch exchange (PBX). For a PBX system, the outside line access number (or extension number) must be specified. |
| Use | • The connected wiring system can be set to either PSTN (Public Switched Telephone Network) or PBX (Private Branch Exchange). For a PBX system, the outside line access number (or extension number) must be specified. The outside line access number (or extension number) is programmed in the [#] key. |
| Setting/ procedure | • The default setting is PSTN. "PSTN": Public Switched Telephone Network PBX: Private Branch Exchange |

11.4.7 USER SETTING**A. PTT SETTING**

| | |
|-----------------------|---|
| Function | • Sets the country where this machine is installed. |
| Use | • To change the country where this machine is installed. |
| Setting/ procedure | • The default setting is USA. "U.S.A" / UNITED KINGDOM / VIETNAM / ARGENTINA / AUSTRALIA AUSTRIA / BELGIUM / BRAZIL / CANADA / CHINA / CZECH / DENMARK EUROPE / FINLAND / FRANCE / GERMANY / GREECE / HONG KONG HUNGARY / IRELAND / ISRAEL / ITALY / KOREA / MALAYSIA / MEXICO THE NETHERLANDS / NEW ZEALAND / NORWAY / PHILIPPINES / POLAND PORTUGAL / RUSSIA / SAUDI ARABIA / SINGAPORE / SLOVAKIA / SOUTH AFRICA / SPAIN / SWEDEN / SWITZERLAND / TAIWAN / TURKEY NOTE When this setting was changed, the following settings will return to their default automatically. • [LANGUAGE] • [PAPER SETUP] • [DATE FORMAT] • [PRESET ZOOM] • [SOFT SWITCH] |

B. DATE & TIME

| | |
|----------|---|
| Function | • Sets the date and time to be indicated on the output of print report. |
| Use | • At the installation or when date and time need to be changed. |

C. DATE FORMAT

| | |
|-----------------------|--|
| Function | • Sets the format of the date to be indicated on the output of PRINT REPORT. |
| Use | • To change the format of the date to be indicated on the output of PRINT REPORT |
| Setting/ procedure | • The default setting is MM/DD/YY. "MM/DD/YY" / DD/MM/YY / YY/MM/DD |

D. PRESET ZOOM

| | |
|-----------------------|---|
| Function | • Sets the type of paper for fixed zoom ratio setting. |
| Use | • To change the type of paper for fixed zoom ratio setting |
| Setting/ procedure | • The default setting is "INCH" (for the inch areas) or "METRIC" (for the metric areas). "INCH" / "METRIC" |

E. USER FAX NUMBER

| | |
|-----------------------|--|
| Function | • Enter user fax number. |
| Use | • The specified number is printed in the header of sent faxes. |
| Setting/ procedure | • Max. 20 digits. • The characters which can be inputted are "numbers from 0 to 9", "Space", "+" and "-." |

F. USER NAME

| | |
|-----------------------|---|
| Function | • The User Name is used for the indication of destination station at the time of the communication between same models. |
| Use | |
| Setting/ procedure | • Maximum 32 digits character can be inputted. |

11.4.8 AUTO REDIAL**A. NUMBER OF REDIAL**

| | |
|-----------------------|---|
| Function | • To specify the number of times a redial is attempted if there is no answer, for example, when the line is busy. |
| Use | |
| Setting/ procedure | • 1 - 10 (Default: Depends on [PTT SETTING]) |

B. INTERVAL

| | |
|-----------------------|--|
| Function | • To specify the interval between redial attempts. |
| Use | |
| Setting/ procedure | • 1 - 99 (Default: Depends on [PTT SETTING]) |

11.5 COPY SETTING**11.5.1 PAPER PRIORITY**

| | |
|-----------------------|---|
| Function | • Selects the priority tray. |
| Use | • To change the priority tray |
| Setting/ procedure | • The default setting is TRAY1. "TRAY1" / TRAY2 NOTE • If Tray 2 is not installed, [TRAY1] and [TRAY2] does not appear. |


11.5.2 QUALITY PRIORITY

| | |
|-----------------------|---|
| Function | • To set the priority image quality mode that is selected when the power switch is turned ON. |
| Use | |
| Setting/ procedure | • The default setting is MIX. "MIX" / TEXT / PHOTO / FINE/MIX / FINE/TEXT / FINE/PHOTO |


11.5.3 DENSITY PRIORITY

| | |
|-----------------------|---|
| Function | • To set the priority density that is selected when the power switch is turned ON |
| Use | |
| Setting/ procedure | • The default setting is AUTO. "AUTO" / MANUAL |

11.5.4 DENSITY LEVEL**A. AUTO**

| | |
|-----------------------|---|
| Function | • To set the density level when the Auto density is selected. |
| Use | |
| Setting/ procedure | • The default setting is  . (LIGHT) -1 / "0" / +1 (DARK) NOTE • Valid only if [TEXT] or [FINE/TEXT] is selected for [QUALITY PRIORITY] |

B. MANUAL

| | |
|-----------------------|--|
| Function | • To set the density level when the Manual density is selected. |
| Use | |
| Setting/ procedure | • The default setting is  . (LIGHT) -3 / -2 / -1 / "0" / +1 / +2 / +3 (DARK) |

11.5.5 OUTPUT PRIORITY

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> To set the priority finishing function, either non-sort, sort, or group. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is NON-SORT. <p style="text-align: center;">"NON-SORT" / SORT</p> |

11.5.6 DUPLEX COPY

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> When conditions necessary for crisscross sorting are met, crisscross sorting can be set to OFF, LONG EDGE or SHORT EDGE. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is OFF. <p style="text-align: center;">"OFF" / LONG EDGE / SHORT EDGE</p> |

11.6 DIAL REGISTER

11.6.1 FAVORIT

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Frequently used speed dial and group dial destinations (maximum of 20) can be registered on the favorite list to allow the fax number to quickly be recalled. |
| Use | |
| Setting/ procedure | <p>NOTE</p> <ul style="list-style-type: none"> Before registering destinations in the favorite list, register them as [SPEED DIAL] or [GROUP DIAL] destinations. <p>1. Press the Address Book key, and then press the ▲ and ▼ key to quickly select the desired destination.</p> |

11.6.2 SPEED DIAL


| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> Frequently specified fax numbers (maximum of 220) can be registered as speed dial destinations. In addition, batch transmission settings can be specified. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The contents of registration. Destination name: 20 characters. Dial No.: 30 digits. E-mail address: 64 characters. Registered data: Automatically. |

11.6.3 GROUP DIAL

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Fax numbers frequently specified for broadcast transmission can be registered as a group dial destination. A maximum of 50 destinations can be registered together as one group. |
| Use | |
| Setting/ procedure | <p>NOTE</p> <ul style="list-style-type: none"> Before registering a group dial destination, register the destinations as [SPEED DIAL] destinations. <ul style="list-style-type: none"> The contents of registration. Group name: 20 characters. Information of destination station: The contents of speed dial. |

11.7 FAX TX OPERATION

11.7.1 DENSITY LEVEL

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> This function can be used to set the default scanning contrast level to one of three settings between [LIGHT] and [DARK]. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is . <p style="text-align: center;">(LIGHT) -1 / "0" / +1 (DARK)</p> |

11.7.2 QUALITY PRIORITY

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> This function can be used to set the default scanning resolution (image quality) to one of the following. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is STD/TEXT. <p style="text-align: center;">"STD/TEXT" / FINE/TEXT / S-FINE/TEXT / STD/PHOTO / FINE/PHOTO S-FINE/PHOTO</p> |

11.7.3 DEFULT TX

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> This function can be used to set the default of TX mode. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is MEMORY TX. <p style="text-align: center;">"MEMORY TX" / DIRECT TX</p> |

11.7.4 HEADER

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> This function can be used to set the default setting (ON or OFF) for adding the header (date sent, sender's name and fax number, etc.) when sending faxes. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is ON. "ON": Add header OFF: No header <p>NOTE</p> <ul style="list-style-type: none"> If [PTT SETTING] in the [USER SETTING] menu is set to U.S.A, CANADA, or KOREA, this setting cannot be changed. <p>The contents of registration.</p> <ul style="list-style-type: none"> TX data and time. Transmitter's own name. Transmitter's own tel number. Session number. Page number. Total page number (only displayed by use the memory TX job). <p>It is selectable by soft switch to transmit only pages which have failed to transmit, if communication error occurs on the way transmitting document. In this case, page number on Header Print is continued from the page number of the document successfully transmitted. Whether user setting is allowed or not is selectable with Soft switch.</p> <p>Attaching Header Print:</p> <ul style="list-style-type: none"> Image within 4 mm (1/4 in.) top margin of transmitting document is not transmitted and Header print data is attached. |

11.8 FAX RX OPERATION

11.8.1 MEMORY RX MODE

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> This function can be used to set whether to allow [ON] memory reception or not [OFF]. |
| Use | <p>In cases when confidential faxes are being received, the received document can be stored in the memory and printed at a specified time or when memory reception is set to [OFF]. A password can be set to specify the starting time or ending time of memory reception, or to cancel the function. The set starting time and ending time are valid every day until memory reception is turned off.</p> |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is OFF. ON: Enable memory RX mode "OFF": Disable memory RX mode |

11.8.2 NO. of RINGS

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> This function can be used to set the number of rings between 1 and 16 until the call is answered. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> Default: Depends on [PTT SETTING]. Depend on soft switch setting of marketing area. <p>NOTE</p> <ul style="list-style-type: none"> When PTT setting is New Zealand, the setting range is 7-10. <p>1: 1 time "2": 2 times 3: 3 times 4: 4 times 5: 5 times 6: 6 times 7: 7 times 8: 8 times 9: 9 times 10: 10 times 11: 11 times 12: 12 times 13: 13 times 14: 14 times 15: 15 times 16: 16 times</p> |

11.8.3 REDUCTION RX

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> This function can be used to set whether documents longer than the paper are printed reduced [ON], split [OFF], or discarded [CUT]. However, when sending a document more than 24 mm (1 inch) longer than the paper, [CUT] is not available. (In this case, the document is split.) |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is ON. OFF: 100% RX mode "ON": Reduction print mode CUT: Cut mode |

A. Reduction print mode

- It reduces (only the FD direction) and prints so that receiving data will in a recording media.

| Recording media size | Footer | Length of received image | Printing |
|----------------------|--------|--------------------------|--|
| A4 | OFF | Less than 289 mm | 1 page with 100% |
| | | 290 mm to 313 mm | 1 page with (289 mm / image length)% reduction |
| | | 314 mm to 570 mm | Divide into 2 pages with 100% |
| | | 571 mm to 851 mm | Divide into 3 pages with 100% |
| | | 852 mm or more | Divide into 4 pages (or more) with 100% |
| | ON | Less than 285 mm | 1 page with 100% |
| | | 286 mm to 309 mm | 1 page with (285 mm / image length)% reduction |
| | | 310 mm to 562 mm | Divide into 2 pages with 100% |
| | | 563 mm to 839 mm | Divide into 3 pages with 100% |
| | | 840 mm or more | Divide into 4 pages (or more) with 100% |
| Letter | OFF | Less than 271 mm | 1 page with 100% |
| | | 272 mm to 295 mm | 1 page with (271 mm / image length)% reduction |
| | | 296 mm to 534 mm | Divide into 2 pages with 100% |
| | | 535 mm to 797 mm | Divide into 3 pages with 100% |
| | | 798 mm or more | Divide into 4 pages (or more) with 100% |
| | ON | Less than 267 mm | 1 page with 100% |
| | | 268 mm to 291 mm | 1 page with (267 mm / image length)% reduction |
| | | 292 mm to 526 mm | Divide into 2 pages with 100% |
| | | 527 mm to 785 mm | Divide into 3 pages with 100% |
| | | 786 mm or more | Divide into 4 pages (or more) with 100% |
| Legal | OFF | Less than 348 mm | 1 page with 100% |
| | | 349 mm to 371 mm | 1 page with (347 mm / image length)% reduction |
| | | 372 mm to 688 mm | Divide into 2 pages with 100% |
| | | 689 mm to 1,028 mm | Divide into 3 pages with 100% |
| | | 1,029 mm or more | Divide into 4 pages (or more) with 100% |
| | ON | Less than 344 mm | 1 page with 100% |
| | | 345 mm to 367 mm | 1 page with (343 mm / image length)% reduction |
| | | 368 mm to 680 mm | Divide into 2 pages with 100% |
| | | 681 mm to 1,016 mm | Divide into 3 pages with 100% |
| | | 1,017 mm or more | Divide into 4 pages (or more) with 100% |

| Recording media size | Footer | Length of received image | Printing |
|----------------------|--------|--------------------------|--|
| Oficio | OFF | Less than 335 mm | 1 page with 100% |
| | | 336 mm to 359 mm | 1 page with (335 mm / image length)% reduction |
| | | 360 mm to 662 mm | Divide into 2 pages with 100% |
| | | 663 mm to 989 mm | Divide into 3 pages with 100% |
| | | 990 mm or more | Divide into 4 pages (or more) with 100% |
| | ON | Less than 331 mm | 1 page with 100% |
| | | 332 mm to 355 mm | 1 page with (331 mm / image length)% reduction |
| | | 356 mm to 654 mm | Divide into 2 pages with 100% |
| | | 655 mm to 977 mm | Divide into 3 pages with 100% |
| | | 978 mm or more | Divide into 4 pages (or more) with 100% |

B. 100% RX mode

- All receiving data is divided into 2 pages or more, and is printed.

| Recording media size | Footer | Length of received image | Printing |
|----------------------|--------|--------------------------|-----------------------------|
| A4 | OFF | Less than 289 mm | 1 page |
| | | 290 mm to 570 mm | Divide into 2 pages |
| | | 571 mm to 851 mm | Divide into 3 pages |
| | | 852 mm or more | Divide into 4 pages or more |
| | ON | Less than 285 mm | 1 page |
| | | 286 mm to 562 mm | Divide into 2 pages |
| | | 563 mm to 839 mm | Divide into 3 pages |
| | | 840 mm or more | Divide into 4 pages or more |
| Letter | OFF | Less than 271 mm | 1 page |
| | | 272 mm to 534 mm | Divide into 2 pages |
| | | 535 mm to 797 mm | Divide into 3 pages |
| | | 798 mm or more | Divide into 4 pages or more |
| | ON | Less than 267 mm | 1 page |
| | | 268 mm to 526 mm | Divide into 2 pages |
| | | 527 mm to 785 mm | Divide into 3 pages |
| | | 786 mm or more | Divide into 4 pages or more |
| Legal | OFF | Less than 348 mm | 1 page |
| | | 349 mm to 688 mm | Divide into 2 pages |
| | | 689 mm to 1,028 mm | Divide into 3 pages |
| | | 1,029 mm or more | Divide into 4 pages or more |
| | ON | Less than 344 mm | 1 page |
| | | 345 mm to 680 mm | Divide into 2 pages |
| | | 681 mm to 1,016 mm | Divide into 3 pages |
| | | 1,017 mm or more | Divide into 4 pages or more |
| Oficio | OFF | Less than 335 mm | 1 page |
| | | 336 mm to 662 mm | Divide into 2 pages |
| | | 663 mm to 989 mm | Divide into 3 pages |
| | | 990 mm or more | Divide into 4 pages or more |
| | ON | Less than 331 mm | 1 page |
| | | 332 mm to 654 mm | Divide into 2 pages |
| | | 655 mm to 977 mm | Divide into 3 pages |
| | | 978 mm or more | Divide into 4 pages or more |

C. Cut mode

- The data that is larger than 1-page record area is cut and not recorded (to 24 mm).

| Recording media size | Footer | Length of received image | Printing |
|----------------------|--------|--------------------------|---|
| A4 | OFF | Less than 289 mm | 1 page |
| | | 290 mm to 313 mm | Print into 1 page. 1 mm to 24 mm of end is cut. |
| | | 314 mm to 570 mm | Divide into 2 pages |
| | | 571 mm to 594 mm | Divide into 2 pages. 1 mm to 24 mm of end is cut. |
| | | 595 mm to 851 mm | Divide into 3 pages |
| | | 852 mm or more | Divide into 3 pages (or more). 1 mm to 24 mm of end is cut. |
| | ON | Less than 285 mm | 1 page |
| | | 286 mm to 309 mm | Print into 1 page. 1 mm to 24 mm of end is cut. |
| | | 310 mm to 562 mm | Divide into 2 pages |
| | | 563 mm to 586 mm | Divide into 2 pages. 1 mm to 24 mm of end is cut. |
| Letter | OFF | 587 mm to 839 mm | Divide into 3 pages |
| | | 840 mm or more | Divide into 3 pages (or more). 1 mm to 24 mm of end is cut. |
| | ON | Less than 271 mm | 1 page |
| | | 272 mm to 295 mm | Print into 1 page. 1 mm to 24 mm of end is cut. |
| | | 296 mm to 534 mm | Divide into 2 pages |
| | | 535 mm to 558 mm | Divide into 2 pages. 1 mm to 24 mm of end is cut. |
| Legal | OFF | 559 mm to 797 mm | Divide into 3 pages |
| | | 798 mm or more | Divide into 3 pages (or more). 1 mm to 24 mm of end is cut. |
| | ON | Less than 267 mm | 1 page |
| | | 268 mm to 291 mm | Print into 1 page. 1 mm to 24 mm of end is cut. |
| | | 292 mm to 526 mm | Divide into 2 pages |
| | | 527 mm to 550 mm | Divide into 2 pages. 1 mm to 24 mm of end is cut. |
| Oficio | OFF | 551 mm to 785 mm | Divide into 3 pages |
| | | 786 mm or more | Divide into 3 pages (or more). 1 mm to 24 mm of end is cut. |
| | ON | Less than 348 mm | 1 page |
| | | 349 mm to 371 mm | Print into 1 page. 1 mm to 24 mm of end is cut. |
| | | 372 mm to 688 mm | Divide into 2 pages |
| | | 689 mm to 712 mm | Divide into 2 pages. 1 mm to 24 mm of end is cut. |
| Legal | OFF | 713 mm to 1,028 mm | Divide into 3 pages |
| | | 1,029 mm or more | Divide into 3 pages (or more). 1 mm to 24 mm of end is cut. |
| | ON | Less than 344 mm | 1 page |
| | | 345 mm to 367 mm | Print into 1 page. 1 mm to 24 mm of end is cut. |
| | | 368 mm to 680 mm | Divide into 2 pages |
| | | 681 mm to 704 mm | Divide into 2 pages. 1 mm to 24 mm of end is cut. |
| Oficio | OFF | 705 mm to 1,016 mm | Divide into 3 pages |
| | | 1,017 mm or more | Divide into 3 pages (or more). 1 mm to 24 mm of end is cut. |
| | ON | Less than 335 mm | 1 page |
| | | 336 mm to 654 mm | Divide into 2 pages |
| | | 655 mm to 977 mm | Divide into 3 pages |
| | | 978 mm or more | Divide into 4 pages or more |

| Recording media size | Footer | Length of received image | Printing |
|----------------------|--------|--------------------------|---|
| Oficio | OFF | Less than 335 mm | 1 page |
| | | 336 mm to 359 mm | Print into 1 page. 1 mm to 24 mm of end is cut. |
| | | 360 mm to 662 mm | Divide into 2 pages |
| | | 663 mm to 686 mm | Divide into 2 pages. 1 mm to 24 mm of end is cut. |
| | | 687 mm to 989 mm | Divide into 3 pages |
| | | 990 mm or more | Divide into 3 pages (or more). 1 mm to 24 mm of end is cut. |
| | ON | Less than 331 mm | 1 page |
| | | 332 mm to 355 mm | Print into 1 page. 1 mm to 24 mm of end is cut. |
| | | 356 mm to 654 mm | Divide into 2 pages |
| | | 655 mm to 678 mm | Divide into 2 pages. 1 mm to 24 mm of end is cut. |
| | | 679 mm to 977 mm | Divide into 3 pages |
| | | 978 mm or more | Divide into 3 pages (or more). 1 mm to 24 mm of end is cut. |

11.8.4 RX PRINT

| | |
|-------------------|---|
| Function | <ul style="list-style-type: none"> This function can be used to set whether the fax is only printed after all document pages have been received [MEMORY RX] or printing begins as soon as the first page of the document is received [PRINT RX]. |
| Use | |
| Setting/procedure | <ul style="list-style-type: none"> The default setting is MEMORY RX. <p>"MEMORY RX": Printed after all document pages have been received. PRINT RX: Printing begins as soon as the first page of the document is received.</p> |

11.8.5 RX MODE

| | |
|-------------------|--|
| Function | <ul style="list-style-type: none"> This function can be used to set the reception mode to automatic reception [AUTO RX] or manual reception [MANUAL RX]. Automatic reception: Automatically begins receiving after the set number of rings. Manual reception: Does not automatically receive the fax. Reception begins after making a connection by picking up the telephone receiver or pressing the On hook key, then pressing the Start key. |
| Use | |
| Setting/procedure | <ul style="list-style-type: none"> The default setting is AUTO RX. <p>"AUTO RX": Automatic reception MANUAL RX: Manual reception</p> |

11.8.6 FORWARD

| | |
|-------------------|---|
| Function | <ul style="list-style-type: none"> This function can be used to set whether or not the received document is forwarded. |
| Use | <p>NOTE</p> <ul style="list-style-type: none"> In order to forward the document to an e-mail address, the optional image controller or network interface card is required. |
| Setting/procedure | <ul style="list-style-type: none"> The default setting is OFF. <p>"OFF" / ON / ON (PRINT)</p> <p>ON: The received document is forwarded to the specified fax number or e-mail address. ON (PRINT): The received document is printed by this machine at the same time that it is forwarded to the specified fax number or e-mail address.</p> |

11.8.7 FOOTER

| | |
|-------------------|--|
| Function | <ul style="list-style-type: none"> This function can be used to set whether or not the reception information (date received, number of pages, etc.) is printed at the bottom of each received document. |
| Use | |
| Setting/procedure | <ul style="list-style-type: none"> The default setting is OFF. <p>"OFF": No footer ON: Add footer</p> |

A. Attaching footer print

When footer is selected ON, it is printed at the end of printable area. 4 mm line area from the end of printable area is kept for printing footer. It should be attached on footer area regardless of image length. If the received image is divided into 2 pages or more, footer is printed in the specified location of all the recording sheets of media printed.

Image data area:

The received image data is printed on the area except for 12 mm from recording media size. (No printable area: 8 mm ($\frac{1}{3}$ in) + footer area: 4 mm ($\frac{1}{4}$ in)) The following table is the image printable area of each recording media size due to setting of footer print.

| Media length | | Footer OFF | Footer ON | |
|--------------|--------|-----------------|-----------------|-------------|
| | | Image data area | Image data area | Footer area |
| A4S | 297 mm | 289 mm | 285 mm | +4 mm |
| LetterS | 279 mm | 271 mm | 267 mm | +4 mm |
| Legal | 356 mm | 348 mm | 344 mm | +4 mm |
| Oficio | 343 mm | 335 mm | 331 mm | +4 mm |

11.8.8 SELECT TRAY

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Select which paper tray can be used to supply paper when printing received documents or transmission reports. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is TRAY1. <p style="text-align: center;">"TRAY1" / TRAY2</p> |

11.9 REPORTING**11.9.1 ACTIVITY REPORT**

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> Every 60 transmissions/receptions, a report can be printed to show the results of the transmissions/receptions. This function can be used to set whether the report is printed automatically when the 60th transmission/ reception is reached. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is ON. <p style="text-align: center;">"ON" / OFF</p> |

11.9.2 TX RESULT REPORT

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> This function can be used to set whether the report showing the result of a transmission is printed automatically after the transmission is finished. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is ON (ERROR). <p style="text-align: center;">ON / "ON (ERROR)" / OFF</p> <p>ON: Prints the report after each transmission. ON (ERROR): Prints the report after a transmission only if an error occurred. OFF: Does not print the report after each transmission, even if an error has occurred.</p> |

11.9.3 RX RESULT REPORT

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> This function can be used to set whether the report showing the result of a reception is printed automatically after mailbox reception is finished. (If regular reception is not finished normally, a report will always be printed, regardless of the selected setting.) |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is ON (ERROR). <p style="text-align: center;">ON / "ON (ERROR)" / OFF</p> <p>ON: Prints the report after each reception. ON (ERROR): Prints the report after a reception only if an error occurred. OFF: Does not print the report after each reception, even if an error has occurred.</p> |

11.10 SCAN SETTING**11.10.1 RESOLUTION**

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> The default settings for resolution used by the scan functions can be specified. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is 150x150dpi. <p style="text-align: center;">"150x150dpi" / 300x300dpi</p> |

11.10.2 IMAGE FORMAT

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> The default settings for data format used by the scan functions can be specified. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is PDF. <p style="text-align: center;">TIFF / "PDF" / JPEG</p> |

11.10.3 CODING METHOD

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> The default settings for coding method, used by the scan functions can be specified. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is MH. <p style="text-align: center;">"MH" / MR / MMR</p> <p>NOTE • These settings are available only if B&W was selected for the color setting during the e-mail transmission.</p> |


11.10.4 FILE SIZE

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> Specify the maximum data size (in Mb) for scan data sent by e-mail. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is NO SPLIT. <p style="text-align: center;">"NO SPLIT" / SPLIT</p> <ul style="list-style-type: none"> If SPLIT is selected, specify the maximum size between 1 and 10 Mb. |

11.10.5 QUALITY PRIORITY

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Select the scan data quality that is used as a default. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is MIX. <p style="text-align: center;">"MIX" / TEXT / PHOTO</p> |

11.10.6 DENSITY LEVEL

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Select the scan data density that is used as a default. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is . <p>(LIGHT) -2 / -1 / "0" / +1 / +2 (DARK)</p> |

12. User service mode

12.1 User service mode function tree

A. Procedure

1. Select [UTILITY] with the ▲/▼ key and press the Select key.
2. Keep on pressing ◀ key over two seconds.

B. Exiting

- Press the Stop/Reset key.

NOTE

- <*1>: If engine is EU type, this item doesn't display.

| MAINTENANCE | | Ref. page |
|-----------------|-----------------------|--------------|
| FAX MAINTENANCE | TX SPEED | P.120 |
| | RX SPEED | |
| | TX LEVEL | |
| | RX LEVEL | |
| | DTMF LEVEL | |
| | CNG LEVEL | |
| | CED LEVEL | |
| | ECM MODE | |
| | CODING SCHEME | |
| | TONER EMPTY REPORT | |
| | PROTOCOL REPORT | |
| | GDI TIMEOUT | |
| | TWAIN TIMEOUT | |
| | ENERGY SAVE MODE <*1> | |
| ADJUST | CIS MAIN ZOOM | P.120 |
| | CIS SUB ZOOM | |
| | CIS MAIN REGIST | |
| | CIS SUB REGIST | |
| | ADF SUB ZOOM | |
| | ADF MAIN REG | |
| | ADF SUB REG | |
| | FLICKER | |
| | TOP ADJUSTMENT | |
| | PLAIN PAPER | |
| | THICK | |
| | ENVELOPE | |
| | LEFT ADJ. (FRONT) | |
| | LEFT ADJ TRAY1 | |
| | LEFT ADJ TRAY2 | |
| | LEFT ADJ. (BACK) | |
| | LEFT ADJ TRAY1 | |
| | LEFT ADJ TRAY2 | |

| MAINTENANCE | | | | Ref. page |
|-------------|----------------|--------------|-------------|--------------|
| | TRANSFER POWER | SIMPLEX PASS | PLAIN PAPER | P.120 |
| | | | THICK1 | |
| | | | THICK2 | |
| | | | POSTCARD | |
| | | | ENVELOPE | |
| | | | LABEL | |
| | IMAGE ADJ PRAM | DUPLEX PASS | PLAIN PAPER | |

12.2 FAX MAINTENANCE

See P.122

12.3 ADJUST

See P.124

13. SERVICE MODE

13.1 SERVICE MODE entry procedure

NOTE

- Ensure appropriate security for the Service Mode entry procedure. It should NEVER be given to any unauthorized person.

A. Procedure

1. On the initial screen, press the following keys in this order.
Select → Stop/Reset → 0 → 0 → Stop/Reset → 0 → 1

B. Exiting

- Press the Stop/Reset key.

13.2 SERVICE MODE function tree

NOTE

- The function tree is shown to comply with the format displayed on the screen.
- <*1>: If engine is EU type, this item doesn't display.
- <*2>: Displayed only when the lower feeder unit is installed.

| SERVICE MODE | | | Ref. page |
|------------------|-----------------------|---------|--------------|
| SERVICE'S CHOICE | TX SPEED | | P.122 |
| | RX SPEED | | P.122 |
| | TX LEVEL | | P.122 |
| | RX LEVEL | | P.122 |
| | DTMF LEVEL | | P.122 |
| | CNG LEVEL | | P.123 |
| | CED LEVEL | | P.123 |
| | ECM MODE | | P.123 |
| | CODING SCHEME | | P.123 |
| | TONER EMPTY REPORT | | P.123 |
| | PROTOCOL REPORT | | P.123 |
| | GDI TIMEOUT | | P.123 |
| | TWAIN TIMEOUT | | P.124 |
| | ENERGY SAVE MODE <*1> | | P.124 |
| | ENABLE WARNING | T/C LOW | P.124 |
| | | I/C LOW | P.124 |

| SERVICE MODE | | | Ref. page |
|--------------|-------------------|--------------------------|--------------|
| ADJUST | CIS MAIN ZOOM | | P.124 |
| | CIS SUB ZOOM | | P.125 |
| | CIS MAIN REGIST | | P.125 |
| | CIS SUB REGIST | | P.126 |
| | ADF SUB ZOOM | | P.126 |
| | ADF MAIN REG | | P.127 |
| | ADF SUB REG | | P.127 |
| | FLICKER | | P.128 |
| | TOP ADJUSTMENT | PLAIN PAPER | P.128 |
| | | THICK | |
| | | ENVELOPE | |
| | LEFT ADJ. (FRONT) | TRAY1 | P.128 |
| | | TRAY2 | |
| | LEFT ADJ. (BACK) | TRAY1 | P.128 |
| | | TRAY2 | |
| | TRANSFER POWER | SIMPLEX PASS PLAIN PAPER | P.128 |
| | | THICK1 | |
| | | THICK2 | |
| | | POSTCARD | |
| | | ENVELOPE | |
| | | LABEL | |
| | | DUPLEX PASS PLAIN PAPER | P.128 |
| | IMAGE ADJ PARAM | | P.128 |
| | TEMPERATURE | PLAIN PAPER | P.129 |
| | | THICK | |
| | | ENVELOPE | |
| | SUPPLIES REPLACE | FUSER UNIT | P.129 |
| | | TRANSFER ROLLER | P.129 |
| | BK CLEAR | | P.129 |
| COUNTER | TOTAL PRINT | TOTAL FACE | P.129 |
| | | COLOR COPY | P.129 |
| | | COLOR PRINT | P.129 |
| | | MONO COPY | P.129 |
| | | MONO PRINT | P.129 |
| | | FAX PRINT | P.129 |
| | | TOTAL DUP. | P.129 |
| | | D COLOR COPY | P.129 |
| | | D COLOR PRN | P.129 |
| | | D MONO COPY | P.129 |
| | | D MONO PRN | P.130 |

| SERVICE MODE | | | Ref. page |
|--------------|--------------------|-----------------|--------------|
| | FAX COUNTER | TX JOB | P.130 |
| | | RX JOB | |
| | SCAN COUNTER | IR | P.130 |
| | | ADF | |
| | TRAY COUNTER | TRAY1 | P.130 |
| | | TRAY2 | |
| | PAPER SIZE COUNTER | | P.130 |
| | PAPER TYPE COUNTER | | P.130 |
| | APPLICATION COUNT. | COPY PRINT | P.130 |
| | | FAX RX PRN. | |
| | | REPORT PRN. | |
| | | PC PRINT | |
| | | FAX TX | |
| | | MAIL TX | |
| | | SCAN TO FTP | |
| | | SCAN TO SMB | |
| | | SCAN TO USB | |
| | | TWAIN | |
| | | PICTBRIDGE | |
| | | USB TO PRN. | |
| | SUPPLIES STATUS | C TONER | P.130 |
| | | M TONER | |
| | | Y TONER | |
| | | K TONER | |
| | | I/C | |
| | CRU USAGE | TRASNFER BELT | P.130 |
| | | FUSER UNIT | |
| | | TRANSFER ROLLER | |
| | | DRUM UNIT | |
| | JAM COUNTER | PRINTER | P.130 |
| | | ADF | |
| | TROUBLE COUNTER | TOTAL | |
| DISPLAY | MAIN F/W VER. | | P.131 |
| | ENGINE F/W VER. | | P.131 |
| | MAIN RAM SIZE | | P.131 |
| | SERIAL NO. | | P.131 |
| | BB CPLD VERSION | | P.131 |

| SERVICE MODE | | | | Ref. page |
|---------------------|--------------------|------------|----------|--------------|
| FUNCTION | PAPER FEED TEST | TRAY1 | | P.131 |
| | | TRAY2 <*2> | | |
| | PRN TEST PATTERN | TRAY1 | PATTERN1 | P.131 |
| | | | PATTERN2 | |
| | | TRAY2 <*2> | PATTERN1 | |
| | | | PATTERN2 | |
| | ADF FEED TEST | | | P.132 |
| | COPY ADF GLASS | | | P.132 |
| | FAX RES. COPY TEST | | | P.132 |
| | SCAN TEST | | | P.132 |
| SOFT SWITCH | | | | P.132 |
| REPORT | SERVICE DATA LIST | | | P.132 |
| | ERROR CODE LIST | | | P.134 |
| | T.30 PROTOCOL LIST | | | P.134 |
| ADMIN. REGISTRATION | | | | P.135 |
| FIXED ZOOM CHANGE | REDUCTION2 | | | P.135 |
| | REDUCTION1 | | | |
| | EXPANSION1 | | | |
| | EXPANSION2 | | | |
| FACTORY TEST | SIGNAL TEST | | | P.135 |
| | RELAY TEST | | | |
| | SENSOR TEST | | | |
| | DIAL TEST | | | |
| | VOLUME TEST | | | |
| | PANEL BUZZER TEST | | | |
| | RAM TEST | | | |
| CLEAR DATA | SRAM CLEAR | | | P.135 |
| | MEMORY CLEAR | | | P.135 |

13.3 SERVICE'S CHOICE

13.3.1 TX SPEED

| | |
|-----------------------|---|
| Function | • Transmit start speed setting. Choose the mode from among the following. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is V.34 33600bps. "V.34": "33600", 31200, 28800, 26400, 24000, 21600, 19200, 16800 V.17: 14400, 12000, 9600, 7200 V.29: 9600, 7200 V.27: 4800, 2400 |

13.3.2 RX SPEED

| | |
|-----------------------|---|
| Function | • Reception start speed setting. Choose the mode from among the following. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is V.34 33600bps. "V.34": "33600", 31200, 28800, 26400, 24000, 21600, 19200, 16800 V.17: 14400, 12000, 9600, 7200 V.29: 9600, 7200 V.27: 4800, 2400 |

13.3.3 TX LEVEL

| | |
|-----------------------|--|
| Function | • PSK/FSK signal output level. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is -9 dBm. -17 to -10 dBm ~ "-9 dBm" ~ -8 to -2 dBm |

13.3.4 RX LEVEL

| | |
|-----------------------|--|
| Function | • Reception sensitivity level. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is -43 dBm. -49 to -44 dBm ~ "-43 dBm" ~ -42 to -36 dBm |

13.3.5 DTMF LEVEL

| | |
|-----------------------|--|
| Function | • Dual tone output level. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is -9 dBm. -17 to -10 dBm ~ "-9 dBm" ~ -8 to -2 dBm |

13.3.6 CNG LEVEL

| | |
|-----------------------|---|
| Function | • Calling tone output level. |
| Use | |
| Setting/ procedure | • The default setting is -11 dBm. -17 to -12 dBm ~ "-11 dBm" ~ -10 to -2 dBm |

13.3.7 CED LEVEL

| | |
|-----------------------|---|
| Function | • Answer tone output level. |
| Use | |
| Setting/ procedure | • The default setting is -11 dBm. -17 to -12 dBm ~ "-11 dBm" ~ -10 to -2 dBm |

13.3.8 ECM MODE

| | |
|-----------------------|---|
| Function | • Select error correction mode. |
| Use | |
| Setting/ procedure | • The default setting is ON. "ON": When an error occurs during communication, re-send the frame where the error occurs. OFF: Any error is ignored during communication. |

13.3.9 CODING SCHEME

| | |
|-----------------------|---|
| Function | • Select compression method in TX/ RX mode. |
| Use | |
| Setting/ procedure | • The default setting is JBIG. MMR: A compression method. MR: A compression method. MH: The simplest compression method. "JBIG": The most complex compression method that generates the smallest code than any of following ones. |

13.3.10 TONER EMPTY REPORT

| | |
|-----------------------|--|
| Function | • Select to generate a report to a specific destination when toner empty status occurs in the engine. |
| Use | |
| Setting/ procedure | • The default setting is OFF. ON: Generate a report to report destination. "OFF": Not to generate report. • If "ON" is selected, select generate report and send to remote side when toner runs out. • Enter the telephone number for which the report is to be produced. • Fax number specifications: An up-to-20-digit number that may consist of [0-9], [*], [#], [pause], and [space]. (0-9, #, *, pause, _) • The report will generate after 20 minutes, 24 hours, 48 hours, or 72 hours after the event has occurred or until the condition is gone. |

A. Toner empty report (example)

| | |
|---|-----------------------|
| <p>NAME:ABC 123 TEL:1234567 DATE: Jun 10.2008 15:12</p> <p>The Fax's following conditions were appears, the machine may be can not work correctly, the Fax already send a report to your dealer automatically. They will contact with you soon.</p> <p>Toner Cartridge Cyan : Empty Toner Cartridge Magenta : Full Toner Cartridge Yellow : Full Toner Cartridge Black : Full</p> | <p>SERVICE REPORT</p> |
|---|-----------------------|

A0FDF3C500DA

13.3.11 PROTOCOL REPORT

| | |
|-----------------------|---|
| Function | • Print communication report. |
| Use | • Choose one from among the following. |
| Setting/ procedure | • The default setting is OFF. "OFF": Disable T.30 communication report. ON: Print T.30 communication report. ON (ERROR): Print T.30 communication report when an error occurs. |

13.3.12 GDI TIMEOUT

| | |
|-----------------------|---|
| Function | • To specify the time for GDI time out. |
| Use | |
| Setting/ procedure | • The default setting is 60 sec. 5 sec / 10 sec / 20 sec / 30 sec / 40 sec / 50 sec / "60 sec" |

13.3.13 TWAIN TIMEOUT

| | |
|-----------------------|--|
| Function | • To specify the time for TWAIN time out. |
| Use | |
| Setting/ procedure | • The default setting is 6 min. 2min / 4min / "6min" / 8min / 10min / 12min / 14min / 16min / 18min |

13.3.14 ENERGY SAVE MODE

| | |
|-----------------------|---|
| Function | • Set weather to activate Energy Save mode when print job receiving or panel operation have not been made for a given period. |
| Use | |
| Setting/ procedure | • The default setting is ON. "ON" / OFF |

13.3.15 ENABLE WARNING**A. T/C LOW**

| | |
|-----------------------|--|
| Function | • Specifies whether or not a warning appears when the toner is about to run out. |
| Use | |
| Setting/ procedure | • The default setting is ON. "ON" / OFF |

B. I/C LOW

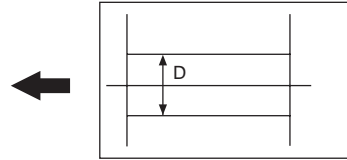
| | |
|-----------------------|---|
| Function | • Specifies whether or not a warning appears when the print unit is about to reach the end of its service life. |
| Use | |
| Setting/ procedure | • The default setting is ON. "ON" / OFF |

13.4 ADJUST

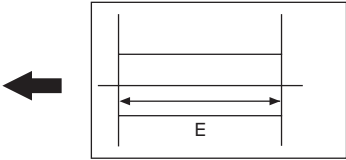
- Different adjust items are applicable and the corresponding adjust values become valid according to the specific sub-function of the main function (Copy, Fax, Twain, or NetScan) as detailed below.

| Adjust item | Function | | | | | | | |
|-----------------|----------|-----|-----|-----|-------|-----|------|-----|
| | Copy | | Fax | | Twain | | Scan | |
| | CIS | ADF | CIS | ADF | CIS | ADF | CIS | ADF |
| CIS MAIN ZOOM | ○ | ○ | ○ | ○ | X | X | X | X |
| CIS SUB ZOOM | ○ | X | ○ | X | X | X | X | X |
| CIS MAIN REGIST | ○ | X | ○ | X | ○ | X | ○ | X |
| CIS SUB REGIST | ○ | X | ○ | X | ○ | X | ○ | X |
| ADF SUB ZOOM | X | ○ | X | ○ | X | X | X | X |
| ADF MAIN REG | X | ○ | X | ○ | X | ○ | X | ○ |
| ADF SUB REG | X | ○ | X | ○ | X | ○ | X | ○ |

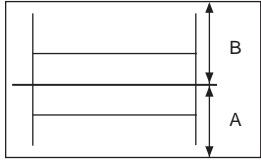
13.4.1 CIS MAIN ZOOM

| | |
|-----------------------------|--|
| Function | • To adjust for variations in the accuracy of IR parts and their mounting accuracy by varying the scanning zoom ratio in the main scanning direction. |
| Use | • When the MFP board has been replaced. • When the scanner unit has been replaced. NOTE • When the MFP board is replaced, the setting value is cleared. Re-entering a new setting value is necessary. |
| Adjustment Specification | <ul style="list-style-type: none"> • Adjust the width of D in the copy of the test pattern1 so that the following specification is met. • $100 \pm 0.5\%$ (Zoom Ratio = Full Size:100%)  <p style="text-align: right;">4139F3C548DA</p> |
| Adjustment Range | <ul style="list-style-type: none"> • The default setting is 0%. • -2.0% ~ "0%" ~ +2.0% • Step: 0.2% |
| Setting/ Procedure | <ol style="list-style-type: none"> 1. Print the test pattern1. See P.131 2. Enter the [ADJUST] menu in the service mode. 3. Select [CIS MAIN ZOOM] of [ADJUST] and press the Select key. 4. Place the test pattern1 on the Original Glass and make a test copy. NOTE <ul style="list-style-type: none"> • The test pattern1 should be positioned vertically. • Use A4 or Letter paper loaded into tray1 to make the test copy. <ol style="list-style-type: none"> 5. Check that the width of D in the copy of the test pattern1 meets the specification. Calculation: $(1 - \text{Width of D in the document} \div \text{Width of D in the copy}) \times 100$ If the width of D is out of specification, adjust it according to the following procedure. 6. Press the Select key. 7. Using the ▲/▼ key, change the setting value and then press the Select key. 8. Place the test pattern1 on the Original Glass. Then, make a test copy again and check it. |
| Adjustment Instructions | <ul style="list-style-type: none"> • If the width of D in the test pattern is longer than the specified width Decrease the setting. • If the width of D in the test pattern is shorter than the specified width Increase the setting. |

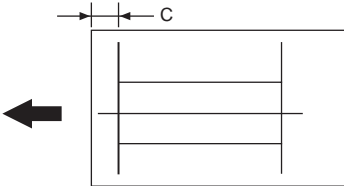
13.4.2 CIS SUB ZOOM

| | |
|--------------------------|---|
| Function | <ul style="list-style-type: none"> To adjust for variations in the accuracy of IR parts and their mounting accuracy by varying the scanning zoom ratio in the sub-scanning direction. |
| Use | <ul style="list-style-type: none"> When the MFP board has been replaced. When the Scanner unit has been replaced <p>NOTE</p> <ul style="list-style-type: none"> When the MFP board is replaced, the setting value is cleared. Re-entering a new setting value is necessary. |
| Adjustment Specification | <ul style="list-style-type: none"> Adjust the width of E in the copy of the test pattern1 so that the following specification is met. 200 ± 0.5% (Zoom Ratio = Full Size:100%)  <p style="text-align: right;">4139F3C549DA</p> |
| Adjustment Range | <ul style="list-style-type: none"> The default setting is 0%. -2.0% ~ "0%" ~ +2.0% Step: 0.2% |
| Setting/ Procedure | <ol style="list-style-type: none"> Print the test pattern1. See P.131 Enter the [ADJUST] menu in the service mode. Select [CIS SUB ZOOM] of [ADJUST] and press the Select key. Place the test pattern1 on the Original Glass and make a test copy. <p>NOTE</p> <ul style="list-style-type: none"> The test pattern1 should be positioned vertically. Use A4 or Letter paper loaded into tray1 to make the test copy. <ol style="list-style-type: none"> Check that the width of E in the copy of the test pattern1 meets the specification. Calculation: (1 - Width of E in the document ÷ Width of E in the copy) × 100 If the width of E is out of specification, adjust it according to the following procedure. Press the Select key. Using the ▲/▼ key, change the setting value and then press the Select key. Place the test pattern1 on the Original Glass. Then, make a test copy again and check it. |
| Adjustment Instructions | <ul style="list-style-type: none"> If the width of E in the test pattern is longer than the specified width Decrease the setting. If the width of E in the test pattern is shorter than the specified width Increase the setting. |

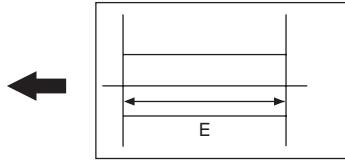
13.4.3 CIS MAIN REGIST

| | |
|--------------------------|--|
| Function | <ul style="list-style-type: none"> To adjust for variations in the accuracy of IR parts and their mounting accuracy by varying the scanning start position in the main scanning direction. |
| Use | <ul style="list-style-type: none"> When the MFP board has been replaced. When the original glass is replaced. When the Scanner unit has been replaced <p>NOTE</p> <ul style="list-style-type: none"> When the MFP board is replaced, the setting value is cleared. Re-entering a new setting value is necessary. After the [CIS MAIN ZOOM] adjustments have been performed |
| Adjustment Specification | <ul style="list-style-type: none"> Adjust the amount that widths A and B in the copy of the test pattern1 so that the following specification is met. 0 ± 2.0 mm  <p style="text-align: right;">4139F3C546DA</p> |
| Adjustment Range | <ul style="list-style-type: none"> The default setting is 0. -5.0 (-5.0 mm) ~ "0.0 (0.0 mm)" ~ +5.0 (+5.0 mm) Step: 0.5 mm |
| Setting/ Procedure | <ol style="list-style-type: none"> Print the test pattern1. See P.131 Enter the [ADJUST] menu in the service mode. Select [CIS MAIN REGIST] of [ADJUST] and press the Select key. Place the test pattern1 on the Original Glass and make a test copy. <p>NOTE</p> <ul style="list-style-type: none"> The test pattern1 should be positioned vertically. Use A4 or Letter paper loaded into tray1 to make the test copy. <ol style="list-style-type: none"> Check the amount that widths A and B in the copy of the test pattern are shifted. If the shift is out of specification, adjust it according to the following procedure. Press the Select key. Using the ▲/▼ key, change the setting value and then press the Select key. Place the test pattern1 on the Original Glass. Then, make a test copy again and check it. |
| Adjustment Instructions | <ul style="list-style-type: none"> If the width of A is less than the width of B..... Increase the setting. If the width of B is less than the width of A..... Decrease the setting. |

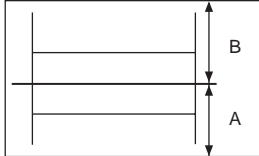
13.4.4 CIS SUB REGIST

| | |
|--------------------------|---|
| Function | <ul style="list-style-type: none"> To adjust for variations in the accuracy of IR parts and their mounting accuracy by varying the scanning start position in the sub-scanning direction. |
| Use | <ul style="list-style-type: none"> When the MFP board has been replaced. When the original glass is replaced. When the Scanner unit has been replaced <p>NOTE</p> <ul style="list-style-type: none"> When the MFP board is replaced, the setting value is cleared. Re-entering a new setting value is necessary. After the [CIS SUB ZOOM] adjustments have been performed |
| Adjustment Specification | <ul style="list-style-type: none"> Adjust the width of C in the copy of the test pattern1 so that the following specification is met. 20 ± 2.5 mm  <p style="text-align: right;">4139F3C547DA</p> |
| Adjustment Range | <ul style="list-style-type: none"> The default setting is 0. -5.0 (-5.0 mm) ~ "0 (0 mm)" ~ +5.0 (+5.0 mm) Step: 0.5 mm |
| Setting/ Procedure | <ol style="list-style-type: none"> Print the test pattern1. See P.131 Enter the [ADJUST] menu in the service mode. Select [CIS SUB REGIST] of [ADJUST] and press the Select key. Place the test pattern1 on the Original Glass and make a test copy. <p>NOTE</p> <ul style="list-style-type: none"> The test pattern1 should be positioned vertically. Use A4 or Letter paper loaded into tray1 to make the test copy. <ol style="list-style-type: none"> Check that the width of C in the copy of the test pattern are shifted. If the width of C is out of specification, adjust it according to the following procedure. Press the Select key. Using the ▲/▼ key, change the setting value and then press the Select key. Place the test pattern1 on the Original Glass. Then, make a test copy again and check it. |
| Adjustment Instructions | <ul style="list-style-type: none"> If the width of C in the test pattern is longer than the specified width Increase the setting. If the width of C in the test pattern is shorter than the specified width Decrease the setting. |

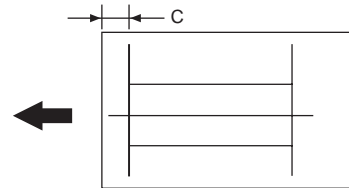
13.4.5 ADF SUB ZOOM

| | |
|--------------------------|---|
| Function | <ul style="list-style-type: none"> To adjust for variations in the accuracy of all parts and their mounting accuracy by varying the scanning zoom ratio in the sub-scanning direction (1-side) when using the Automatic Document Feeder. |
| Use | <ul style="list-style-type: none"> When the MFP board has been replaced. When the original glass is replaced. When a new Auto Document Feeder Unit is mounted <p>NOTE</p> <ul style="list-style-type: none"> When the MFP board is replaced, the setting value is cleared. Re-entering a new setting value is necessary. After the [CIS SUB ZOOM] adjustments have been performed |
| Adjustment Specification | <ul style="list-style-type: none"> Adjust the length of E in the copy of the test pattern so that the following specification is met. 200 ± 0.5 % (Zoom Ratio = Full Size: 100 %)  <p style="text-align: right;">4139F3C549DA</p> |
| Adjustment Range | <ul style="list-style-type: none"> -2.0% ~ "0%" ~ +2.0% Step: 0.4% |
| Setting/ Procedure | <ol style="list-style-type: none"> Print the test pattern1. See P.131 Enter the [ADJUST] menu in the service mode. Select [ADF SUB ZOOM], and press the Select key. Place test pattern 1 in the ADF with its printed surface up. Select [TEST COPY] and press the Select key to make a test copy. <p>NOTE</p> <ul style="list-style-type: none"> The test pattern1 should be positioned vertically. Use A4 or Letter paper loaded into tray1 to make the test copy. <ol style="list-style-type: none"> Check that the width of E in the copy of the test pattern1 meets the specification. Calculation: (1 - Width of E in the document ÷ Width of E in the copy) × 100 If the width of E is out of specification, adjust it according to the following procedure. Select [ADJUST], and press the Select key. Using the ▲/▼ key, change the setting value and then press the Select key. Place the test pattern1 into the Automatic Document Feeder. Then, make a test copy again and check it. |
| Adjustment Instructions | <ul style="list-style-type: none"> If the width of E in the test pattern is longer than the specified width Decrease the setting. If the width of E in the test pattern is shorter than the specified width Increase the setting. |

13.4.6 ADF MAIN REG

| | |
|--------------------------|--|
| Function | <ul style="list-style-type: none"> To adjust for variations in the accuracy of all parts and their mounting accuracy by varying the scanning start position in the main scanning direction (1-side) when using the Automatic Document Feeder. |
| Use | <ul style="list-style-type: none"> When the MFP board has been replaced. When the original glass is replaced. When a new Auto Document Feeder Unit is mounted <p>NOTE</p> <ul style="list-style-type: none"> When the MFP board is replaced, the setting value is cleared. Re-entering a new setting value is necessary. After the [CIS SUB ZOOM] adjustments have been performed After the [ADF SUB ZOOM] adjustments have been performed |
| Adjustment Specification | <ul style="list-style-type: none"> Adjust the amount that widths A and B in the copy of the test pattern1 so that the following specification is met. 0 ± 2.0 mm  <p style="text-align: right;">4139F3C546DA</p> |
| Adjustment Range | <ul style="list-style-type: none"> -5.0 (-5.0 mm) ~ "0.0 (0.0 mm)" ~ +5.0 (+5.0 mm) Step: 0.5 mm |
| Setting/ Procedure | <ol style="list-style-type: none"> Print the test pattern1. See P.131 Enter the [ADJUST] menu in the service mode. Select [ADF MAIN REG], and press the Select key. Place test pattern 1 in the ADF with its printed surface up. Select [TEST COPY] and press the Select key to make a test copy. <p>NOTE</p> <ul style="list-style-type: none"> The test pattern1 should be positioned vertically. Use A4 or Letter paper loaded into tray1 to make the test copy. <ol style="list-style-type: none"> Check the amount that widths A and B in the copy of the test pattern are shifted. If the shift is out of specification, adjust it according to the following procedure. Select [ADJUST], and press the Select key. Using the $\blacktriangle/\blacktriangledown$ key, change the setting value and then press the Select key. Place the test pattern1 into the Automatic Document Feeder. Then, make a test copy again and check it. |
| Adjustment Instructions | <ul style="list-style-type: none"> If the width of A is less than the width of B..... Increase the setting. If the width of B is less than the width of A..... Decrease the setting. |

13.4.7 ADF SUB REG

| | |
|--------------------------|---|
| Function | <ul style="list-style-type: none"> To adjust for variations in the accuracy of all parts and their mounting accuracy by varying the scanning start position in the sub-scanning direction (1-side) when using the Automatic Document Feeder. |
| Use | <ul style="list-style-type: none"> When the MFP board has been replaced. When the original glass is replaced. When a new Auto Document Feeder Unit is mounted <p>NOTE</p> <ul style="list-style-type: none"> When the MFP board is replaced, the setting value is cleared. Re-entering a new setting value is necessary. After the [CIS SUB ZOOM] adjustments have been performed After the [ADF SUB ZOOM] adjustments have been performed |
| Adjustment Specification | <ul style="list-style-type: none"> Adjust the width of C in the copy of the test pattern1 so that the following specification is met. 20 ± 2.5 mm  <p style="text-align: right;">4139F3C547DA</p> |
| Adjustment Range | <ul style="list-style-type: none"> -5.0 (-5.0 mm) ~ "0 (0 mm)" ~ +5.0 (+5.0 mm) Step: 0.5 mm |
| Setting/ Procedure | <ol style="list-style-type: none"> Print the test pattern1. See P.131 Enter the [ADJUST] menu in the service mode. Select [ADF SUB REG], and press the Select key. Place test pattern 1 in the ADF with its printed surface up. Select [TEST COPY] and press the Select key to make a test copy. <p>NOTE</p> <ul style="list-style-type: none"> The test pattern1 should be positioned vertically. Use A4 or Letter paper loaded into tray1 to make the test copy. <ol style="list-style-type: none"> Check that the width of C in the copy of the test pattern are shifted. If the width of C is out of specification, adjust it according to the following procedure. Select [ADJUST], and press the Select key. Using the $\blacktriangle/\blacktriangledown$ key, change the setting value and then press the Select key. Place the test pattern1 into the Automatic Document Feeder. Then, make a test copy again and check it. |
| Adjustment Instructions | <ul style="list-style-type: none"> If the width of C in the test pattern is longer than the specified width Increase the setting. If the width of C in the test pattern is shorter than the specified width Decrease the setting. |

13.4.8 FLICKER

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Eliminates flickers of a room fluorescent light when it occurs due to power source use environment or similar reason. |
| Use | <ul style="list-style-type: none"> Use when the fluorescent light flickers due to power source use environment or similar reason. |
| Setting/ procedure | <ul style="list-style-type: none"> The default setting is 0. <p>“0”: Flicker control is determined according to an area code. 1: Flicker control is always on. 2: Flicker control is always off.</p> |

13.4.9 TOP ADJUSTMENT

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Adjusts the top margin of media for single-sided printing. |
| Use | <ul style="list-style-type: none"> To correct a misaligned print image. <p>PLAIN PAPER : Adjust the head margin of plain paper. THICK : Adjust the head margin of thick paper. ENVELOPE : Adjust the head margin of envelope.</p> |
| Setting /procedure | <ol style="list-style-type: none"> Select [TOP ADJUSTMENT] and press the Select key. Select desired paper type and press the Select key. Select desired adjustment amount with the up key▲/down key▼ and press the Select key. <p>-15 to +15 (1 step: 0.21 mm)</p> |

13.4.10 LEFT ADJ. (FRONT)

| | |
|-----------------------|--|
| Function | <ul style="list-style-type: none"> Adjusts the left margin of media for single-sided printing. |
| Use | <ul style="list-style-type: none"> To correct a misaligned print image. <p>TRAY 1: Adjust the left margin of media fed from tray 1 (manual tray.) TRAY 2: Adjust the left margin of media fed from tray 2.</p> |
| Setting /procedure | <ol style="list-style-type: none"> Select [LEFT ADJ. (FRONT)] and press the Select key. Select desired tray and press the Select key. Select desired adjustment amount with the up key▲/down key▼ and press the Select key. <p>-15 to +15 (1 step: 0.21 mm)</p> |

13.4.11 LEFT ADJ. (BACK)

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Adjusts the left margin of media for double-sided printing. |
| Use | <ul style="list-style-type: none"> To correct a misaligned print image. <p>TRAY 1: Adjust the left margin of duplex print media fed from tray 1 (manual tray.) TRAY 2: Adjust the left margin of duplex print media fed from tray 2.</p> |
| Setting /procedure | <ol style="list-style-type: none"> Select [LEFT ADJ. (BACK)] and press the Select key. Select desired tray and press the Select key. Select desired adjustment amount with the up key▲/down key▼ and press the Select key. <p>-15 to +15 (1 step: 0.21 mm)</p> |

13.4.12 TRANSFER POWER**A. SIMPLEX PASS**

| | |
|----------------------------|---|
| Functions | <ul style="list-style-type: none"> Adjust the 2nd image transfer output (ATVC) on the single-sided pages for each media type. |
| Use | <ul style="list-style-type: none"> To use when the transfer failure at the trailing edge occurs. |
| Adjustment Range | <ul style="list-style-type: none"> The default setting is 0. <p>-8 ~ +7</p> |
| Adjustment Instructions | <p>To increase the ATVC value (in the direction of a foggy image), decrease the setting value. To decrease the ATVC value (in the direction of a less foggy image), increase the setting value.</p> |
| Setting/ Procedure | <ol style="list-style-type: none"> Select [TRANSFER POWER] and press the Select key. Select [SIMPLEX PASS] and press the Select key. Select desired media type with the up key▲/down key▼ and press the Select key. Select desired setting value with the up key▲/down key▼ and press the Select key. |

B. DUPLEX PASS

| | |
|----------------------------|--|
| Functions | <ul style="list-style-type: none"> Adjust the 2nd image transfer output (ATVC) on the duplexed pages for each media type. |
| Use | <ul style="list-style-type: none"> To use when the transfer failure at the trailing edge occurs. |
| Adjustment Range | <ul style="list-style-type: none"> The default setting is 0. <p>-8 ~ +7</p> |
| Adjustment Instructions | <p>To increase the ATVC value (in the direction of a foggy image), decrease the setting value. To decrease the ATVC value (in the direction of a less foggy image), increase the setting value.</p> |
| Setting/ Procedure | <ol style="list-style-type: none"> Select [TRANSFER POWER] and press the Select key. Select [DUPLEX PASS] and press the Select key. Select desired media type with the up key▲/down key▼ and press the Select key. Select desired setting value with the up key▲/down key▼ and press the Select key. |

13.4.13 IMG ADJ PARAM

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> Adjusts the printer in case of an image quality problem (uneven density) |
| Use | <ul style="list-style-type: none"> To correct image quality problems (uneven density) due to the printer being operated at a high altitude. |
| Setting /procedure | <ul style="list-style-type: none"> The default setting is 0. <p>“0”: 0 V 1: -100 V 2: -200 V 3: -300 V</p> <p>NOTE</p> <ul style="list-style-type: none"> When the setting has been changed, be sure to run a [CALIBRATION] process. See P.105 |

13.4.14 TEMPERATURE

| | |
|-------------------------|---|
| Function | <ul style="list-style-type: none"> To adjust the fusing heating temperature individually for each paper type so as to ensure good fusing performance that varies with varying environmental conditions. |
| Use | <ul style="list-style-type: none"> When fusing performance is poor, or wax streak or offset occurs when the type of paper is changed or environmental conditions change. Use this function when curled paper, or paper misfeed as a result of the curled paper, occurs under varying environmental conditions or depending on the type of paper used. |
| Adjustment Range | PLAIN PAPER: -10 °C / -5 °C / 0 °C THICK: -10 °C / -5 °C / 0 °C ENVELOPE: -10 °C / -5 °C / 0 °C |
| Adjustment Instructions | If fusing performance is poor, increase the setting. If wax streaks occur, decrease the setting. If offset is poor, decrease the setting. If curling of the paper occurs, decrease the setting. |
| Setting /procedure | 1. Select [TEMPERATURE] and press the Select key. 2. Select the type of paper and press the Select key. 3. Select desired setting value with the up key▲/down key▼ and press the Select key. |

13.4.15 SUPPLIES REPLACE**A. FUSER UNIT**

| | |
|--------------------|--|
| Function | <ul style="list-style-type: none"> Resets the fuser unit counter. |
| Use | <ul style="list-style-type: none"> To use when the fuser unit has been replaced. |
| Setting /procedure | 1. Select [SUPPLIES REPLACE] → [FUSER UNIT]. 2. Press the Select key. 3. Press the Select key and reset the counter. |

B. TRANSFER ROLLER

| | |
|--------------------|---|
| Function | <ul style="list-style-type: none"> Resets the transfer roller counter. |
| Use | <ul style="list-style-type: none"> To use when the transfer roller has been replaced. |
| Setting /procedure | 1. Select [SUPPLIES REPLACE] → [TRANSFER ROLLER]. 2. Press the Select key. 3. Press the Select key and reset the counter. |

13.4.16 BK CLEAR

| | |
|--------------------|---|
| Function | <ul style="list-style-type: none"> To clear engine information backup data |
| Use | <ul style="list-style-type: none"> Use when the engine information backup data is cleared. <p>NOTE</p> <ul style="list-style-type: none"> Execute this function to synchronize data when the MFP board or the printer control board is replaced with a new one. |
| Setting /procedure | 1. Select [BK CLEAR] and press the Select key. 2. Press the Select key and clear the backup data. |

13.5 COUNTER**13.5.1 TOTAL PRINT****A. TOTAL FACE**

| | |
|----------|---|
| Function | <ul style="list-style-type: none"> Displays the total number of face. |
| Use | <ul style="list-style-type: none"> When checking the total number of face. |

B. COLOR COPY

| | |
|----------|--|
| Function | <ul style="list-style-type: none"> Displays the number of color copies made. |
| Use | <ul style="list-style-type: none"> When checking the number of color copies made. |

C. COLOR PRINT

| | |
|----------|---|
| Function | <ul style="list-style-type: none"> Displays the number of color printed pages produced. |
| Use | <ul style="list-style-type: none"> When checking the number of color printed pages produced. |

D. MONO COPY

| | |
|----------|---|
| Function | <ul style="list-style-type: none"> Displays the number of monochrome copies made. |
| Use | <ul style="list-style-type: none"> When checking the number of monochrome copies made. |

E. MONO PRINT

| | |
|----------|--|
| Function | <ul style="list-style-type: none"> Displays the number of monochrome printed pages produced. |
| Use | <ul style="list-style-type: none"> When checking the number of monochrome printed pages produced. |

F. FAX PRINT

| | |
|----------|---|
| Function | <ul style="list-style-type: none"> Displays the number of FAX printed pages produced. |
| Use | <ul style="list-style-type: none"> When checking the number of FAX printed pages produced. |

G. TOTAL DUP.

| | |
|----------|--|
| Function | <ul style="list-style-type: none"> Displays the total number of sheets of duplex copy or duplex print. |
| Use | <ul style="list-style-type: none"> When checking the total number of sheets of duplex copy or duplex print. |

H. D COLOR COPY

| | |
|----------|--|
| Function | <ul style="list-style-type: none"> Displays the number of duplex color printed pages produced. |
| Use | <ul style="list-style-type: none"> When checking the number of duplex color printed pages produced. |

I. D COLOR PRN

| | |
|----------|--|
| Function | <ul style="list-style-type: none"> Displays the number of duplex monochrome copies made. |
| Use | <ul style="list-style-type: none"> When checking the number of duplex monochrome copies made. |

J. D MONO COPY

| | |
|----------|--|
| Function | <ul style="list-style-type: none"> Displays the number of duplex monochrome copies made. |
| Use | <ul style="list-style-type: none"> When checking the number of duplex monochrome copies made. |

K. D MONO PRN

| | |
|----------|---|
| Function | • Displays the number of duplex monochrome printed pages produced. |
| Use | • When checking the number of duplex monochrome printed pages produced. |

13.5.2 FAX COUNTER

| | |
|----------|--|
| Function | • Displays the number of FAX printed pages produced. |
| Use | • When checking the number of FAX printed pages produced. TX JOB: Counter the number of transmission job. RX JOB: Counter the number of reception job. |

13.5.3 SCAN COUNTER

| | |
|----------|---|
| Function | • To display the count of the scan counter. |
| Use | • When checking the number of scans made. IR: Count one when one time of IR action completed. ADF: Count the number of sheet of ADF scanning. |

13.5.4 TRAY COUNTER

| | |
|----------|--|
| Function | • Displays the number of sheets of paper used for each tray. |
| Use | • The element to count is as follows. TRAY1, TRAY2 |

13.5.5 PAPER SIZE COUNTER

| | |
|----------|--|
| Function | • Displays the number of sheets of paper used for each size and type. • A paper size counter is as follows. |
| Use | A4, B5, A5, LEGAL, LETTER, OTHERS |

13.5.6 PAPER TYPE COUNTER

| | |
|----------|---|
| Function | • Displays the number of sheets of paper used for each paper type. • A paper type counter is as follows. |
| Use | PLAIN PAPER, THICK, THICK2, ENVELOPE, LETTERHEAD, POSTCARD, LABEL |

13.5.7 APPLICATION COUNT.

| | |
|----------|--|
| Function | • To display the count of the number of sheets of paper used for each of different applications. |
| Use | • When checking the number of sheets of paper used for each of different applications. COPY PRINT: Number of copies made FAX RX PRN.: Number of printed pages received by Fax REPORT PRN.: Number of printed report pages PC PRINT: Number of printed pages produced from PC FAX TX: Number of transmitting to Fax. MAIL TX: Number of transmitting to mail server. SCAN TO FTP: Number of transmitting to FTP server. SCAN TO SMB: Number of transmitting to SMB. SCAN TO USB: Number of transmitting to USB memory. TWAIN: Number of transmitting to PCI. PICTBRIDGE: Number of sheets counts at the time of the completion of printing. * This machine is not supporting PictBridge. USB TO PRN.: Number of sheets counts at the time of the completion of USB printing. |

13.5.8 SUPPLIES STATUS

| | |
|----------|---|
| Function | • Display toner and image unit status. C TONER: Displays the remaining amount of toner in the cyan (C) toner cartridge as a percentage. M TONER: Displays the remaining amount of toner in the magenta (M) toner cartridge as a percentage. Y TONER: Displays the remaining amount of toner in the yellow (Y) toner cartridge as a percentage. K TONER: Displays the remaining amount of toner in the black (K) toner cartridge as a percentage. I/C: Displays the remaining service life of the imaging unit as a percentage. |
| Use | |

13.5.9 CRU USAGE

| | |
|----------|--|
| Function | • Displays the remaining life of the maintenance service parts. |
| Use | • To check the remaining life of the maintenance service parts. TRANSFER BELT: Displays the remaining life of the transfer belt. FUSER UNIT: Displays the remaining life of the fusing unit. TRANSFER ROLLER: Displays the remaining life of the transfer roller. DRUM UNIT: Displays the remaining life of the drum unit. |

13.5.10 JAM COUNTER

| | |
|----------|---|
| Function | • Displays the number of misfeeds that have occurred. |
| Use | • When checking for the number of misfeeds that have occurred PRINTER, ADF |

13.5.11 TROUBLE COUNTER

| | |
|----------|---|
| Function | • Displays the number of malfunctions detected. |
| Use | • When checking for the number of malfunctions detected TOTAL: Total numbers of all malfunctions detected. |

13.6 DISPLAY

13.6.1 MAIN F/W VER.

| | |
|----------|---|
| Function | <ul style="list-style-type: none"> Displays the version of the controller firmware. |
| Use | <ul style="list-style-type: none"> When upgrading the firmware When the image processing board has been replaced with a new one |

13.6.2 ENGINE F/W VER.

| | |
|----------|---|
| Function | <ul style="list-style-type: none"> Displays the version of the engine firmware. |
| Use | <ul style="list-style-type: none"> When the printer control board has been replaced with a new one |

13.6.3 MAIN RAM SIZE

| | |
|----------|---|
| Function | <ul style="list-style-type: none"> Displays the size of the main memory. |
| Use | <ul style="list-style-type: none"> When checking for the memory size |

13.6.4 SERIAL NO.

| | |
|----------|---|
| Function | <ul style="list-style-type: none"> Displays the serial number of the printer engine. |
| Use | <ul style="list-style-type: none"> When checking for the printer serial number |

13.6.5 BB CPLD VERSION

| | |
|----------|---|
| Function | <ul style="list-style-type: none"> Displays the version of the BB CPLD firmware. |
| Use | |

13.7 FUNCTION

13.7.1 PAPER FEED TEST

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> To check the paper feeding in the paper take-up/transport sections without printing on the paper. |
| Use | <ul style="list-style-type: none"> When a paper misfeed occurs |
| Setting/ procedure | <ol style="list-style-type: none"> Select the [TRAY1] or [TRAY2]. Press the Select key to begin testing paper feeding. Press the Stop/Reset key to stop testing paper feeding. <p>NOTE</p> <ul style="list-style-type: none"> It cannot be operated at the time of warming up. Don't count. |

13.7.2 PRN TEST PATTERN

A. PATTERN1

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> To print the test pattern for adjusting the image. |
| Use | <ul style="list-style-type: none"> If there is tilt or when registration or zoom ratio adjustments are performed |
| Setting/ procedure | <ol style="list-style-type: none"> Select the [TRAY1] or [TRAY2]. Select the [PATTERN1]. Press the Select key to print the test pattern. <div> </div> <p>4139F3C550DA</p> |

B. PATTERN2

| | |
|-----------------------|---|
| Function | <ul style="list-style-type: none"> To print the test pattern for halftones and gradations. |
| Use | <ul style="list-style-type: none"> When checking density and pitch irregularities When checking reproducibility of gradations |
| Setting/ procedure | <ol style="list-style-type: none"> Select the [TRAY1] or [TRAY2]. Select the [PATTERN2]. Press the Select key to print the test pattern. <div> </div> <p>4139F3C551DA</p> |

13.7.3 ADF FEED TEST

| | |
|-----------------------|--|
| Function | • To check the paper feeding in the paper take-up/transport sections in the Automatic Document Feeder. |
| Use | • When a document misfeed occurs |
| Setting/ procedure | 1. Load paper into the Automatic Document Feeder. 2. Press the Select key to begin testing paper feeding. 3. Press the Stop/Reset key to stop testing paper feeding. |

13.7.4 COPY ADF GLASS

| | |
|-----------------------|---|
| Function | • To check for dirt in the scanning section of the Automatic Document Feeder. |
| Use | • If spots appear in the copies |
| Setting/ procedure | 1. Load A4S or LetterS paper into Tray1. 2. Press the Select key to start the [COPY ADF GLASS] function. 3. Two copy samples are fed out. 4. Check that no spots appear in the copy samples. 5. Press the Stop/Reset key to stop the [COPY ADF GLASS] function. |

13.7.5 FAX RES. COPY TEST

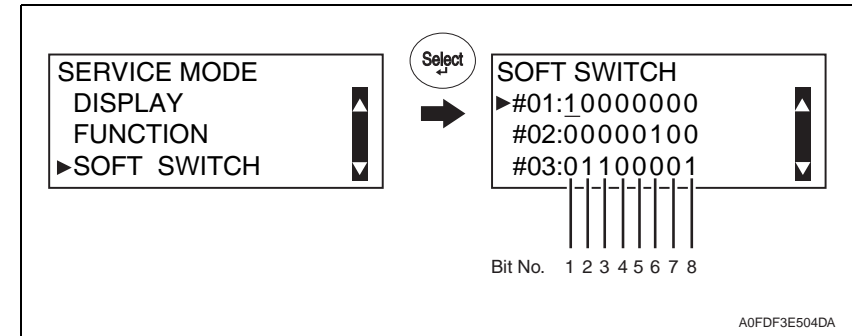
| | |
|-----------------------|--|
| Function | • Fax resolution copy test |
| Use | • To check whether the encoding/ decoding process is correct |
| Setting/ procedure | • The paper source is fixed to Tray1. (Tray cannot be changed.) • When A4 or Letter is not loaded in Tray1, operation of printing is not performed. |

13.7.6 SCAN TEST

| | |
|-----------------------|---|
| Function | • To check the lighting of the Exposure Lamp and the movement of the scanner. |
| Use | • If the scanner malfunctions |
| Setting/ procedure | 1. Press the Select key to begin the scanner test. 2. Press the Stop/Reset key to stop the scanner test. |

13.8 SOFT SWITCH**NOTE**

- Refer to the chapter of soft switch for the explanation of soft switch.
[See P.137](#)

**13.8.1 KEY DEFINITION FOR SOFT SWITCH**

| Key | Definition |
|--------|---|
| ▼ | Soft Switch Number Forward. |
| ▲ | Soft Switch Number Backward. |
| ▶ | Bit No. Forward. |
| ◀ | Bit No. Backward. |
| 1 or 0 | Bit No. is changed. |
| Select | The setting value of Soft Switch Number is defined. |

13.9 REPORT**13.9.1 SERVICE DATA LIST**

| | |
|-----------------------|--|
| Function | • Print service data list report and Error log history list. |
| Use | <p>Service Data list includes the following items:</p> <ul style="list-style-type: none"> SOFT SWITCH COMMUNICATION HISTORY & COUNTER ADJUST RX IN MEMORY ADMINISTRATOR PASSWORD MAIN RAM SIZE ROM ID <p>Error log history list includes the following items:</p> <ul style="list-style-type: none"> Index: Index number from 0 - 9999 Error: Error code number Maker: NSF frame maker code Tell.: Remote side or TX side telephone number for that transaction |
| Setting/ procedure | 1. Enter the [SERVICE MODE]. 2. Select [REPORT] and press the Select key. 3. Select [SERVICE DATA LIST] and press the Select key. |

(1) SERVICE DATA LIST

SERVICE DATA LIST

NAME:Amber A10
TEL :1234567
DATE:JUL.02.2005 11:55

--SOFT SWITCH --

| | |
|-----------|---|
| SW01-SW16 | 00 20 80 0C 00 00 07 61 00 81 00 80 10 00 01 03 |
| SW17-SW32 | 00 00 68 00 80 06 00 00 00 28 00 A7 14 68 00 00 |
| SW33-SW48 | 00 82 10 8A 00 01 00 08 00 00 00 04 00 06 00 89 |
| SW49-SW64 | 01 00 00 00 00 00 B0 00 00 00 00 21 0F 00 80 10 |

--COMMUNICATION HISTORY & COUNTER --

| | |
|-----------------------|----------------------|
| 000001: ECM RX TIME | 000000: ECM TX TIME |
| 000008: G3 RX TIME | 000000: G3 RX PAGE |
| 000000: V.17 14.4K | 000000: V.17 12K |
| 000000: V.17 9.6K | 000000: V.17 7.2K |
| 000000: V.29 9.6K | 000000: V.29 7.2K |
| 000000: V.27 4.8K | 000001: V.27 2.4K |
| 000001: G3 TX TIME | 000000: G3 TX PAGE |
| 000000: V.17 14.4K | 000000: V.17 12K |
| 000000: V.17 9.6K | 000000: V.17 7.2K |
| 000000: V.29 9.6K | 000000: V.29 7.2K |
| 000000: V.27 4.8K | 000000: V.27 2.4K |
| 000027: V.34 RX TIME | 000007: V.34 RX PAGE |
| 000002: 33.6K | 000005: 31.2K |
| 000000: 28.8K | 000000: 26.4K |
| 000000: 24.0K | 000000: 21.6K |
| 000000: 19.2K | 000000: 16.8K |
| 000000: 9.6K | 000000: 7.2K |
| 000000: 4.8K | 000000: 2.4K |
| 000000: V.34 TX TIME | 000015: V.34 TX PAGE |
| 000000: 33.6K | 000006: 31.2K |
| 000000: 28.8K | 000000: 26.4K |
| 000000: 24.0K | 000000: 21.6K |
| 000000: 19.2K | 000000: 16.8K |
| 000000: 9.6K | 000000: 7.2K |
| 000000: 4.8K | 000000: 2.4K |
| 000007: JBIG TX TIME | 000007: JBIG RX TIME |
| 000000: TOTAL COUNTER | |
| 000849: COPY PRINT | 000000: FAX PRINT |
| 000127: REPORT PRINT | 000000: PC PRINT |

-- ADJUST --

| | | |
|---------------------|-------------------|---------------------|
| CIS MAIN ZOOM : 0 | LEFT ADJ BACK : 0 | IMAGE ADJ PARAM : 0 |
| CIS SUB ZOOM : 0 | TRAY1 : 0 | |
| CIS MAIN REGIST : 0 | TRAY2 : 0 | TEMPERATURE : 0 |
| CIS SUB REGIST : 0 | | PLAIN PAPER : 0 |
| | TRANSFER POWER | THICK PAPER : 0 |
| ADF MAIN REGIST : 0 | SIMPLEX PASS | ENVELOPE : 0 |
| ADF SUB ZOOM : 0 | PLAIN PAPER : 0 | |
| ADF SUB REGIST : 0 | THICK1 : 0 | |
| | THICK2 : 0 | |
| FLICKER : 0 | POSTCARD : 0 | |
| | ENVELOPE : 0 | |
| TOP ADJUSTMENT | LABEL : 0 | |
| PLAIN PAPER : 0 | DUPLEX PASS : 0 | |
| THICK PAPER : 0 | PLAIN PAPER : 0 | |
| ENVELOPE : 0 | | |

LEFT ADJ FRONT

| |
|-----------|
| TRAY1 : 0 |
| TRAY2 : 0 |

RX IN MEMORY :
ADMIN. PASSWORD :000000
MAIN RAM SIZE : 128Mb

-- ROM ID --
MAIN : 06/14/2007 V001
BOOT : 07/16/2007 V0.03
ENGINE: A00F-50F0-0302-00

A0HFF3E505DA

(2) ERROR LOG HISTORY LIST (example)

- The following table is the error log history. The table keeps the last 40 records only.

| ERROR LOG HISTORY LIST | | | |
|------------------------|-------|-------|-------------|
| Index | Error | Maker | Tele. |
| 0001 | :00A0 | 4230 | 88634733507 |
| 0002 | :00A0 | 49EE | |
| 0003 | :0070 | 0000 | |
| 0004 | :0070 | 0000 | |
| 0005 | :0070 | 0000 | |
| 0006 | :0070 | 0000 | |
| 0007 | :0070 | 0000 | |
| 0008 | :0070 | 0000 | |
| 0009 | :0070 | 0000 | 123 |

NSF signal 3rd. and 4th byte Keep 20 digits of TSI or CSI

4139F3E552DA

13.9.3 T.30 PROTOCOL LIST

| | |
|-----------------------|---|
| Function | Print out T.30 or V8 protocol after communication. |
| Use | <ul style="list-style-type: none"> • SESSION: Session number • FUNCTION: Function Name • DESTINATION STATION: Destination Name/Tel. No. • DATE/TIME: Communication Date & Time • PAGE: Total page number for this session • MODE: Communication speed and ECM mode • RESULT: Communication result • TX: T.30 command sent by local Fax • RX: T.30 command received from remote Fax • DATA: T.30 frame that include address & control & Data |
| Setting/ procedure | <ol style="list-style-type: none"> 1. Enter the [SERVICE MODE]. 2. Select [REPORT] and press the Select key. 3. Select [T.30 PROTOCOL LIST] and press the Select key. |

(1) V.17 Communication (example)

[illegible]

(2) V.34 Communication (example)

| PROTOCOL MONITOR REPORT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------|--|-------------|---------|--------|-------|------|-------------|------|--------|----|----|------|----|-----|--|----|----|--|-----|--|-----|--|-----|--|-----|-----|-----|------|--|---------|-----|-----|--|
| NAME:TMFP TEL:886 3 4733507 DATE:APR.10.2008 12:20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SESSION | FUNCTION | NO. | DESTINATION | STATION | DATE | TIME | PAGE | DURATION | MODE | RESULT | | | | | | | | | | | | | | | | | | | | | | | | |
| 0001 | TX | 010 | 27187480 | | OCT.27 | 17:19 | 008 | 00h00min03s | ECM | OK | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>TX</th> <th>RX</th> <th>DATA</th> </tr> </thead> <tbody> <tr> <td>CM</td> <td>ANS</td> <td rowspan="10"> <div>V.8 PROTOCOL DUMP</div> <pre> FF 03 20 00 00 25 00 00 00 12 10 6D 02 00 58 00 28 B8 A4 A0 80 91 60 FF 03 20 00 00 25 01 45 43 4E 45 59 45 4B FF 03 40 30 38 34 37 38 31 37 32 20 20 20 20 20 20 20 FF 13 80 20 EE A8 C4 80 98 81 80 80 60 FF 13 83 00 02 F0 84 80 80 80 80 80 20 FF 13 84 FF 13 BF 2F 00 00 7F FF 13 8C FF 13 FB </pre> </td> </tr> <tr> <td>CJ</td> <td>JM</td> </tr> <tr> <td></td> <td>NSF</td> </tr> <tr> <td></td> <td>NSF</td> </tr> <tr> <td></td> <td>CSI</td> </tr> <tr> <td></td> <td>DIS</td> </tr> <tr> <td>DCS</td> <td>CFR</td> </tr> <tr> <td>►PIX</td> <td></td> </tr> <tr> <td>PPS-EOP</td> <td>MCF</td> </tr> <tr> <td>DCN</td> <td></td> </tr> </tbody> </table> | | | | | | | | | | | TX | RX | DATA | CM | ANS | <div>V.8 PROTOCOL DUMP</div> <pre> FF 03 20 00 00 25 00 00 00 12 10 6D 02 00 58 00 28 B8 A4 A0 80 91 60 FF 03 20 00 00 25 01 45 43 4E 45 59 45 4B FF 03 40 30 38 34 37 38 31 37 32 20 20 20 20 20 20 20 FF 13 80 20 EE A8 C4 80 98 81 80 80 60 FF 13 83 00 02 F0 84 80 80 80 80 80 20 FF 13 84 FF 13 BF 2F 00 00 7F FF 13 8C FF 13 FB </pre> | CJ | JM | | NSF | | NSF | | CSI | | DIS | DCS | CFR | ►PIX | | PPS-EOP | MCF | DCN | |
| TX | RX | DATA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CM | ANS | <div>V.8 PROTOCOL DUMP</div> <pre> FF 03 20 00 00 25 00 00 00 12 10 6D 02 00 58 00 28 B8 A4 A0 80 91 60 FF 03 20 00 00 25 01 45 43 4E 45 59 45 4B FF 03 40 30 38 34 37 38 31 37 32 20 20 20 20 20 20 20 FF 13 80 20 EE A8 C4 80 98 81 80 80 60 FF 13 83 00 02 F0 84 80 80 80 80 80 20 FF 13 84 FF 13 BF 2F 00 00 7F FF 13 8C FF 13 FB </pre> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CJ | JM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NSF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NSF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | CSI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | DIS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DCS | CFR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ►PIX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PPS-EOP | MCF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DCN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

A0FDF3C508DA

13.10 ADMIN. REGISTRATION

| | |
|-----------------------|--|
| Function | • Use to display or change the current Administrator number. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> Administrator number: 000000 to 999999 1. Enter the [SERVICE MODE]. 2. Select [ADMIN. REGISTRATION] and press the Select key. 3. Check that the current ADMIN. No. is displayed and then press the [Back] key. 4. Enter the new ADMIN. No. from the 10-key pad and press the Select key. |

13.11 FIXED ZOOM CHANGE

| | |
|-----------------------|---|
| Function | • The fixed zoom ratios can be changed. |
| Use | |
| Setting/ procedure | <ul style="list-style-type: none"> 1. Enter the [SERVICE MODE]. 2. Select [FIXED ZOOM CHANGE] and press the Select key. 3. Select the fixed zoom ratio that you wish to change and press the Select key. 4. Use the 10-Key Pad to type in the desired fixed zoom ratio. |

- Default fixed zoom ratios and setting ranges according to marketing area

<Metric>

| Setting name | Initial fixed zoom ratio | Setting range |
|--------------|--------------------------|---------------|
| REDUCTION2 | 70% | 51% to 70% |
| REDUCTION1 | 81% | 71% to 99% |
| EXPANSION1 | 115% | 101% to 140% |
| EXPANSION2 | 141% | 141% to 199% |

<Inch>

| Setting name | Initial fixed zoom ratio | Setting range |
|--------------|--------------------------|---------------|
| REDUCTION2 | 64% | 51% to 64% |
| REDUCTION1 | 78% | 65% to 99% |
| EXPANSION1 | 129% | 101% to 153% |
| EXPANSION2 | 154% | 154% to 199% |

13.12 FACTORY TEST

- This test is for factory adjustment only and should NOT be used.

| | Functions/Use |
|-------------------|--|
| SIGNAL TEST | • This test is for factory adjustment only and should NOT be used. |
| RELAY TEST | • This test is for factory adjustment only and should NOT be used. |
| SENSOR TEST | • This test is for factory adjustment only and should NOT be used. |
| DIAL TEST | • This test is for factory adjustment only and should NOT be used. |
| VOLUME TEST | • To check the volume of the speaker. |
| PANEL BUZZER TEST | <ul style="list-style-type: none"> • To check the operation of the display and all indicators and buttons. • When the panel buzzer test are finish, press the panel reset key twice. |
| RAM TEST | • To test reading and writing of the memory. |

13.13 CLEAR DATA

13.13.1 SRAM CLEAR

| | |
|-----------------------|---|
| Function | To clear the settings for the functions listed at the right and return the functions to their default settings. |
| Use | <p>The following items are cleared (initialization).</p> <ul style="list-style-type: none"> Menu mode (Except for [ADMIN. MANAGEMENT] - [USER SETTING] - [DATE&TIME] that keeps its setting value): Only [USER SERVICE MODE] of the user service mode: Set to default Only [TX/RX Result] of the Display mode: Clear Only [SERVICE'S CHOICE] and [SOFT SWITCH] of the Service mode: Set to default |
| Setting/ procedure | <p>NOTE</p> <ul style="list-style-type: none"> Before executing [SRAM CLEAR], be sure to record the setting values that are to be initialized through [SRAM CLEAR]. For the record of the setting values, it is a good idea to have reports and lists printed. Some setting values are not included any of these reports or lists. Be sure to make a note of them separately. After [SRAM CLEAR] has been executed, make necessary entries of data again based on the setting values recorded. |

13.13.2 MEMORY CLEAR

| | |
|-----------------------|---|
| Function | To clear the settings for the functions listed at the right and return the functions to their default settings. |
| Use | <p>The following items are cleared (initialization).</p> <ul style="list-style-type: none"> Only [SERVICE'S CHOICE] and [FIXED ZOOM CHANGE] of the Service mode: Set to default |
| Setting/ procedure | <p>NOTE</p> <ul style="list-style-type: none"> Before executing [MEMORY CLEAR], be sure to record the setting values that are to be initialized through [MEMORY CLEAR]. For the record of the setting values, it is a good idea to have reports and lists printed. Some setting values are not included any of these reports or lists. Be sure to make a note of them separately. After [MEMORY CLEAR] has been executed, make necessary entries of data again based on the setting values recorded. |

14. SOFT SWITCH set

14.1 Description

This machine is equipped with totally 64 soft switches that are used for fax adjustment in order to conform to the standard of each country.
The default setting is changeable.

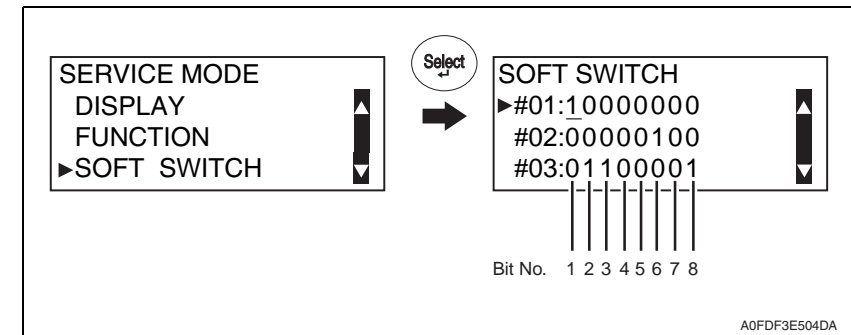
The default setting of soft switch is automatically changed according to the following settings.

- The marketing area is set in procedures of [UTILITY] → [ADMIN. MANAGEMENT] → [USER SETTING] → [PTT SETTING].
- The marketing area is set at [PTT Setting] by using LSU utility software.
- When the setting is made in the procedures of [SERVICE MODE] → [CLEAR DATA] → [SRAM CLEAR], the default setting is defined according to the current setting of marketing area.

Bit No. can be changed with the following way.

- [SOFT SWITCH] of [SERVICE MODE].

See P.132



| Hex-binary conversion list | | HEX | | | | | | | | | | | | | | | |
|-------------------------------|-------|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
| Bit No. | 4 (8) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 3 (7) | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| | 2 (6) | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| | 1 (5) | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |

14.2 Default setting

14.2.1 Country for each marketing area

NOTE

- A different country may be applicable depending on the communications standard.
- The marketing area settings is set in the procedure of [UTILITY] → [ADMIN. MANAGEMENT] → [USER SETTING] → [PTT SETTING].

See P.111

14.2.2 Soft switch list

| Soft Switch No. | Bit No. | Designation | Page No. |
|-----------------|---------|---|----------|
| #01 | 2/1 | V.34 CI signal byte number | P.150 |
| #02 | 8/7 | Time between phase C to phase D signal in V.17 | P.150 |
| | 6 | Header TX selection open to user | |
| | 3/2 | Transmit RTN signal level criteria | |
| #03 | 8 | Send out NSF frame with station ID | P.151 |
| | 7 | Number of Pause within phone number | |
| | 6 | Re-dial prohibit for NO ANSWER | |
| | 4/3/2/1 | RX level setting | |
| #04 | 4 | Visible alarm for RTN signal | P.151 |
| | 3 | Audible alarm for RTN signal | |
| #05 | 8/7 | Push button ON/OFF Timing (PB) | P.152 |
| | 6/5 | Relation between 10 key # & No.of dial pulse | |
| | 3 | 10PPS/20PPS | |
| | 2/1 | PPS ratio | |
| #06 | 8/7 | Ring on time to ignore ring off time at 1st cycle | P.152 |
| | 4/3 | Ring off time at 1st cycle to approve incoming ring | |
| #07 | 8 | Dial tone or busy tone detection | P.152 |
| | 7 | PSTN/PBX setting | |
| | 6 | PBX dial tone detect | |
| | 5 | Dial mode select | |
| | 4/3/2/1 | TX level select for PSK/FSK | |
| #08 | 7 | Detect busy tone after dialing | P.153 |
| | 6 | Sending CED signal after connection | |
| #09 | 8/7 | Ringer frequency detection | P.153 |
| | 5 | TSI/CSI append "+" | |
| | 2/1 | Time from RX DIS signal to send DCS signal | |
| #10 | 8 | Print out RTN page report | P.153 |
| | 7 | Confirmation report result field | |
| | 6/5 | Get gap time between digit for pulse dial | |
| | 4 | RX PIP T.30 command after send out MPS command | |
| | 3 | Received DIS signal within reception | |
| | 2 | Transmission time limitation | |
| | 1 | Audio alarm after communication fail | |
| #11 | 7 | Detect dial tone after pre-fix number | P.154 |
| | 6 | Pulse dial allowed to select | |
| | 5 | Protocol signal display mode | |
| | 2 | USB port number fixed | |
| | 1 | DTMF low frequency compensation | |

| Soft Switch No. | Bit No. | Designation | Page No. |
|-----------------|---------------|--|----------|
| #12 | 8 | ECM mode capability | P.154 |
| | 7/6 | V.34 fall back counter for V.34 TX | |
| | 5 | Send CTC after 4th PPR | |
| | 3 | Send EOR after lowest speed | |
| | 2/1 | TCF transmission timing after DCS signal | |
| #13 | 8 | MR capability for G3 | P.155 |
| | 7/6 | Delay time between transaction | |
| | 5 | Super fine printing capability for receiving | |
| | 3 | DTS mode | |
| | 2 | Send DTC signal if RX DIS signal in manual RX mode (no function on G4) | |
| #14 | 6 | Memory size level to RX | P.155 |
| | 3/2/1 | Time between V.34 ANSam signal and FSK DIS signal | |
| #15 | 8 | IPSEL1 | P.155 |
| | 7 | DCSEL | |
| | 6 | DCLIM | |
| #16 | 2/1 | Fax communication coding method | P.155 |
| #17 | 6 | CED frequency | P.156 |
| | 5/4/3 | Pause between off hook and CED signal | |
| | 2/1 | Inactivity timer [T5] | |
| #18 | 6/5 | G3 mode training quality level | P.156 |
| | 4/3/2/1 | Redefine re-dial attempts counter | |
| #19 | 8/7/6/5 | CNG signal level | P.157 |
| | 4/3/2/1 | DTMF high frequency level | |
| #20 | — | Reserved | P.157 |
| #21 | 8 | NSS signal before DCS | P.157 |
| | 7/6 | CNG sending duration after dialing | |
| | 5 | T4 timer | |
| | 4 | VOIP (Voice over IP) | |
| | 3 | DIS signal length | |
| | 2/1 | Increase default T1 timing during calling (Only for TX function) | |
| #22 | 4/3/2/1 | CED signal output level | P.158 |
| #23 | 4/3/2/1 | DTMF low frequency level | P.158 |
| #24 | 7/6/5/4/3/2/1 | Re-dial interval | P.158 |
| #25 | 4/3 | Flash key time | P.159 |
| #26 | 8/7 | Dial tone detection time before disconnected | P.160 |
| #27 | — | Reserved | P.160 |
| #28 | 8/7/6/5 | Time to dial after dial tone on the line | P.160 |
| | 4/3/2/1 | CED duration time within calling period | |
| #29 | 5/4/3/2/1 | Time to dial after seize the line when dial tone detection | P.161 |

| Soft Switch No. | Bit No. | Designation | Page No. |
|-----------------|-----------------|--|----------|
| #30 | 8/7 | Pause delay time within digits | P.161 |
| | 6/5/4/3/2/1 | Signal tone insensitivity (dBm) after dial for busy tone | |
| #31 | 7/6/5 | Min re-dial interval | P.162 |
| | 4/3/2/1 | Max. re-dial attempts | |
| #32 | — | Reserved | P.162 |
| #33 | 7 | V.17 Echo protection tone | P.162 |
| | 6 | V.29 Echo protection tone | |
| | 5 | Compromise equalize enable (CEQ) in the transmit path (TCEQ) | |
| | 4 | Compromise equalize enable (CEQ) in the receiver path (RCEQ) | |
| #34 | — | Reserved | P.162 |
| #35 | 8/7 | Dial tone table switch time | P.163 |
| | 6/5/4 | Dial tone frequency upper range index | |
| | 3/2/1 | Dial tone frequency low range index | |
| #36 | 8 | Re-dial attempts continue fail counter (Using for detect line problem error) | P.163 |
| | 4/3/2/1 | Re-dial attempts fail limitation counter (Using for detect line problem error) | |
| #37 | 7 | Auto dial learning for V.34 modem | P.164 |
| | 6/5/4 | RX start symbol rate for V.34 modem | |
| | 3/2/1 | TX start symbol rate for V.34 modem | |
| #38 | 7 | Set/Reset V.34 transmit level deviation | P.164 |
| | 6/5 | V.34 flag number between ECM frame | |
| | 4 | Phase 2 guard tone power level (V.34) | |
| | 1 | V.8 /V.34 capability | |
| #39 | 8 | Disable V.34 TX for V.34 modem | P.164 |
| | 7 | Disable V.34 RX for V.34 modem | |
| | 6/5 | Flags number in FSK frame for V.34 modem | |
| | 4 | Manual TX mode for V.34 modem | |
| | 3 | Switch from V.17 to V.34 if DIS Bit 6 set after received DIS | |
| #40 | 2/1 | Delay time in primary channel for V.34 transmit after CFR or MCF signal | P.165 |
| | | | |
| #41 | 8/7/6/5 | V.17 RX start speed select receiving start speed for V.17 | P.165 |
| | 3/2/1 | V.34 RX start speed prohibit V.34 mode when upper speed less | |
| #42 | 8/7/6/5 | V.17 TX start speed select receiving start speed for V.17 | P.166 |
| | 4/3/2/1 | V.34 TX start speed prohibit V.34 mode when upper speed less | |
| #43 | 8/7/6/5/4/3/2/1 | Reserved | P.166 |
| #44 | — | Reserved | P.166 |

| Soft Switch No. | Bit No. | Designation | Page No. |
|-----------------|-------------|--|----------|
| #45 | 5 | Call transfer | P.166 |
| | 4/3/2/1 | No. of call transfer | |
| #46 | 8 | Daylight savings timer | P.166 |
| | 4 | RX print mode | |
| | 3 | Default TX mode | |
| | 2 | Header for FAX TX | |
| #47 | 1 | Print model name on top of TX page if name not register | P.167 |
| | 6 | RX mode | |
| #48 | 5 | Footer | P.167 |
| | 8 | Activity report | |
| | 7/6 | TX result report | |
| #49 | 5/4 | RX result report | P.167 |
| | | | |
| #50 | 5 | Re-dial method if Comm. Fail | P.167 |
| | 4/3/2/1 | No. of rings | |
| #51 | 8 | Transmit or cancel after time out in "Memory TX" | P.167 |
| #52 | 4/3 | T30 monitor report selection | P.168 |
| | 2 | Send unsent page mode for memory transmission | |
| #53 | — | Reserved | P.168 |
| #54 | — | Reserved | P.168 |
| | 8 | Report Date/Time type | |
| | 7/6 | Report Date/Time format | |
| | 5/4 | Memory near full capacity for Fax and I-Fax scanning | |
| #55 | 3/2 | Memory near full capacity for N-Scan scanning | P.169 |
| | | | |
| #56 | — | Reserved | P.169 |
| #57 | — | Reserved | P.169 |
| #58 | 8 | Time out from PSK to FSK delay time | P.169 |
| #59 | 6/5/4/3/2/1 | Time Between GMT (Greenwich Mean Time) | P.170 |
| #60 | 6 | Quick memory TX | P.171 |
| | 2 | Off hook alarm after communication | |
| | 1 | Display destination selection within TX phase C | |
| #61 | 4/3/2/1 | Max. No. of ring | P.171 |
| #62 | — | Reserved | P.172 |
| #63 | 8 | "#" key definition in PBX mode | P.172 |
| | 2 | Fax TX image adjust | |
| | 1 | TX result report with image | |
| #64 | 6 | Print RX error report in RX side if no any FAX signal detected | P.172 |
| | 5 | 10 PPS & 20 PPS selectable by user | |

14.2.3 Default soft switch setting for each market area

A. Market area 1

| Soft Switch No. | Marketing area | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|----------------|---|---|---|---|---|---|---|----------------|---|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|
| | U.S.A | | | | | | | | United Kingdom | | | | | | | | Argentina | | | | | | | | Australia | | | | | | | | |
| | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| #01 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | |
| #03 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | |
| #04 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | |
| #05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | |
| #06 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| #07 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | |
| #08 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | |
| #09 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | |
| #10 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | |
| #11 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | |
| #13 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | |
| #14 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | |
| #16 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #18 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #19 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | |
| #20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | |
| #22 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | |
| #23 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | |
| #24 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #28 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| #29 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| #30 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| #31 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| #32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #33 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| #34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #35 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 |
| #36 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| #37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

[illegible]

B. Market area 2

| Soft Switch No. | Marketing area | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|----------------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|---|---|---|---|
| | Austria | | | | | | | | Belgium | | | | | | | | Brazil | | | | | | | | Canada | | | | | | | | | | | | |
| | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | | |
| #01 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| #02 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #03 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | | |
| #04 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | | |
| #05 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #06 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | |
| #07 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #08 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | |
| #09 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #10 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | |
| #11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | | |
| #12 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| #13 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | |
| #14 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #16 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #18 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #19 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | |
| #20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| #22 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #23 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #24 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #28 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 |
| #29 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | |
| #30 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | |
| #31 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | |
| #32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #35 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| #36 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | |
| #37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #38 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | |

[illegible]

C. Market area 3

| Soft Switch No. | Marketing area | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|----------------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|---|---|---|---|
| | China | | | | | | | | Czech | | | | | | | | Denmark | | | | | | | | Europe | | | | | | | | | | | | |
| | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | | |
| #01 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| #02 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | | | | |
| #03 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | | | | |
| #04 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | | | | |
| #05 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | | | |
| #06 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | | |
| #07 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | | |
| #08 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | | |
| #09 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #10 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| #11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #12 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | | |
| #13 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | | |
| #14 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | |
| #16 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #18 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #19 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | | |
| #20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | |
| #22 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #23 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #24 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #28 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | |
| #29 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #30 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | |
| #31 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | |
| #32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #35 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #36 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #38 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

[illegible]

D. Market area 4

| Soft Switch No. | Marketing area | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|----------------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|
| | Finland | | | | | | | | France | | | | | | | | Germany | | | | | | | | Greece | | | | | | | | |
| | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| #01 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #02 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | |
| #03 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | |
| #04 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | |
| #05 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | |
| #06 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | |
| #07 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | |
| #08 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | |
| #09 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | |
| #10 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | |
| #11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #12 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | |
| #13 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #14 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| #16 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #18 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #19 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | |
| #20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #21 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | |
| #22 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #23 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #24 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #28 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| #29 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| #30 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| #31 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| #32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #33 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| #34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #35 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| #36 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| #37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #38 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |

| Soft Switch No. | Marketing area | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|----------------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|
| | Finland | | | | | | | | France | | | | | | | | Germany | | | | | | | | Greece | | | | | | | | |
| | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| #39 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #46 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| #47 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #48 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| #49 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #54 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| #55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #57 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #59 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #61 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| #62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #63 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| #64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

E. Market area 5

| Soft Switch No. | Marketing area | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|----------------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|---|
| | Hong Kong | | | | | | | | Hungary | | | | | | | | Ireland | | | | | | | | Israel | | | | | | | | | |
| | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
| #01 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #02 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | |
| #03 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | |
| #04 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | |
| #05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | |
| #06 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | |
| #07 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | |
| #08 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | |
| #09 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | |
| #10 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | |
| #11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | |
| #13 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | |
| #14 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| #16 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #18 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #19 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | |
| #20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #21 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
| #22 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #23 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #24 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #28 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| #29 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| #30 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| #31 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| #32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #33 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #35 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 |
| #36 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| #37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #38 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |

| Soft Switch No. | Marketing area | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|----------------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|
| | Hong Kong | | | | | | | | Hungary | | | | | | | | Ireland | | | | | | | | Israel | | | | | | | | |
| | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| #39 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #46 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| #47 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #48 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| #49 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #54 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| #55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #57 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #59 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| #60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #61 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| #62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #63 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| #64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

F. Market area 6

| Soft Switch No. | Marketing area | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|----------------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|----------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|
| | Italy | | | | | | | | Korea | | | | | | | | Malaysia | | | | | | | | Mexico | | | | | | | | |
| | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| #01 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #02 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| #03 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | |
| #04 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | |
| #05 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #06 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | |
| #07 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | |
| #08 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | |
| #09 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #10 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| #11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #12 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| #13 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | |
| #14 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #16 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #18 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #19 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | |
| #20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #21 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | |
| #22 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | |
| #23 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | |
| #24 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #28 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | |
| #29 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| #30 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| #31 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| #32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #33 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| #34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #35 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| #36 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| #37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #38 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |

| Soft Switch No. | Marketing area | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|----------------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|----------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|
| | Italy | | | | | | | | Korea | | | | | | | | Malaysia | | | | | | | | Mexico | | | | | | | | |
| | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| #39 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #46 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| #47 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #48 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| #49 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #54 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| #55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #57 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #59 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| #60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #61 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| #62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #63 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| #64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

G. Market area 7

| Soft Switch No. | Marketing area | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|----------------|---|---|---|---|---|---|---|-------------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|-------------|---|---|---|---|---|---|---|
| | Netherlands | | | | | | | | New Zealand | | | | | | | | Norway | | | | | | | | Philippines | | | | | | | |
| | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| #01 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #02 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| #03 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 |
| #04 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| #05 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| #06 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| #07 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| #08 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| #09 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #10 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| #11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #12 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| #13 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| #14 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #16 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| #17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #18 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| #19 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| #20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #21 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| #22 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| #23 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| #24 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| #25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #28 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 |
| #29 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| #30 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 |
| #31 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| #32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #33 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| #34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #35 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| #36 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| #37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #38 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |

| Soft Switch No. | Marketing area | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|----------------|---|---|---|---|---|---|---|-------------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|-------------|---|---|---|---|---|---|---|---|---|
| | Netherlands | | | | | | | | New Zealand | | | | | | | | Norway | | | | | | | | Philippines | | | | | | | | | |
| | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
| #39 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #46 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #47 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #48 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | |
| #49 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #54 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| #55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #57 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #59 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | |
| #60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #61 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| #62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #63 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| #64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

H. Market area 8

| Soft Switch No. | Marketing area | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|----------------|---|---|---|---|---|---|---|----------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|--------------|---|---|---|---|---|---|---|---|---|---|
| | Poland | | | | | | | | Portugal | | | | | | | | Russia | | | | | | | | Saudi Arabia | | | | | | | | | | |
| | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | |
| #01 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| #02 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | | |
| #03 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | | |
| #04 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | | |
| #05 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | | |
| #06 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | |
| #07 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | |
| #08 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | |
| #09 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #10 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | |
| #11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #12 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | |
| #13 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #14 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | |
| #16 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #18 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #19 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | |
| #20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| #22 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #23 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #24 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #28 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| #29 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| #30 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| #31 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| #32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| #34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #35 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| #36 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| #37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #38 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |

| Soft Switch No. | Marketing area | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|----------------|---|---|---|---|---|---|---|----------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|--------------|---|---|---|---|---|---|---|---|
| | Poland | | | | | | | | Portugal | | | | | | | | Russia | | | | | | | | Saudi Arabia | | | | | | | | |
| | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| #39 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #46 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| #47 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #48 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| #49 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #54 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| #55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #57 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #59 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #61 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| #62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #63 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| #64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

I. Market area 9

| Soft Switch No. | Marketing area | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|----------------|---|---|---|---|---|---|---|----------|---|---|---|---|---|---|---|--------------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|---|
| | Singapore | | | | | | | | Slovakia | | | | | | | | South Africa | | | | | | | | Spain | | | | | | | | | |
| | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
| #01 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| #02 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | |
| #03 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | |
| #04 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #05 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | |
| #06 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | |
| #07 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | |
| #08 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | |
| #09 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | |
| #10 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | |
| #11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | |
| #13 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | |
| #14 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| #16 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #18 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #19 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | |
| #20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #21 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
| #22 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| #23 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| #24 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| #25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #28 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| #29 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| #30 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| #31 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| #32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #33 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #35 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| #36 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| #37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #38 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |

| Soft Switch No. | Marketing area | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|----------------|---|---|---|---|---|---|---|----------|---|---|---|---|---|---|---|--------------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|
| | Singapore | | | | | | | | Slovakia | | | | | | | | South Africa | | | | | | | | Spain | | | | | | | | |
| | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| #39 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #46 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| #47 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #48 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| #49 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #54 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| #55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #57 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #59 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #61 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| #62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #63 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| #64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

J. Market area 10

| Soft Switch No. | Marketing area | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|----------------|---|---|---|---|---|---|---|-------------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|---|
| | Sweden | | | | | | | | Switzerland | | | | | | | | Taiwan | | | | | | | | Turkey | | | | | | | | | |
| | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | Bit No. | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
| #01 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #02 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | |
| #03 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | |
| #04 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | |
| #05 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | |
| #06 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | |
| #07 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | |
| #08 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | |
| #09 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #10 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | |
| #11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #12 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | |
| #13 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #14 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| #16 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #18 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| #19 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | |
| #20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #21 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | |
| #22 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | |
| #23 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | |
| #24 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | |
| #25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #28 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| #29 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| #30 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| #31 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| #32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #33 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| #35 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| #36 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| #37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #38 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |

[illegible]

K. Market area 11

| Soft Switch No. | Marketing area | | | | | | | |
|-----------------|----------------|---|---|---|---|---|---|---|
| | Vietnam | | | | | | | |
| | Bit No. | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| #01 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #02 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| #03 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |
| #04 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| #05 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| #06 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| #07 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| #08 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| #09 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| #10 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| #11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| #13 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| #14 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| #15 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |
| #16 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| #17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #18 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| #19 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 |
| #20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #21 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| #22 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| #23 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| #24 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| #25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #28 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 |
| #29 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| #30 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 |
| #31 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| #32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #33 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| #34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #35 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| #36 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| #37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #38 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |

| Soft Switch No. | Marketing area | | | | | | | |
|-----------------|----------------|---|---|---|---|---|---|---|
| | Vietnam | | | | | | | |
| | Bit No. | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| #39 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #46 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| #47 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #48 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 |
| #49 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #54 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 |
| #55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #57 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #59 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| #60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #61 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| #62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| #63 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| #64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

14.3 Soft switch definition

NOTE

 : Default settings of U.S.

14.3.1 SOFT SWITCH: #01

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | |
|-------------|----------------------------|---|-----------------|----------|----------|---------|----------|-----------|---|---|---|---|-----------|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | |
| 8 | Reserved | Reserved | 0 | 0 | | | | | | | | | | | | | | | |
| 7 | | | 0 | | | | | | | | | | | | | | | | |
| 6 | | | 0 | | | | | | | | | | | | | | | | |
| 5 | | | 0 | | | | | | | | | | | | | | | | |
| 4 | | | 0 | | | | | | | | | | | | | | | | |
| 3 | | | 0 | | | | | | | | | | | | | | | | |
| 2 | V.34 CI signal byte number | <table border="1"> <tr> <th>Byte number</th><th>30 bytes</th><th>15 bytes</th><th>9 bytes</th><th>60 bytes</th></tr> <tr> <td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr> <tr> <td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr> </table> | Byte number | 30 bytes | 15 bytes | 9 bytes | 60 bytes | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Byte number | 30 bytes | 15 bytes | 9 bytes | 60 bytes | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | |
| 1 | | | 1 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

14.3.2 SOFT SWITCH: #02

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | |
|--------------------------|---|---|--------------------------|--------|--------|--------|-------|-----------|-----------|---|---|---|---|-----------|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | |
| 8 | Time between phase C to phase D signal in V.17 Example: Image → EOP | <table><tr><td>RX Insensitivity</td><td>70 ms</td><td>120 ms</td><td>180 ms</td><td>60 ms</td></tr></table> | RX Insensitivity | 70 ms | 120 ms | 180 ms | 60 ms | 0 | 0 | | | | | | | | | | |
| RX Insensitivity | | 70 ms | 120 ms | 180 ms | 60 ms | | | | | | | | | | | | | | |
| 7 | | <table><tr><td>Bit No. 8</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 7</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Bit No. 8 | 0 | 0 | 1 | 1 | Bit No. 7 | | 0 | 1 | 0 | 1 | 0 | | | | | |
| Bit No. 8 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | |
| Bit No. 7 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | |
| 6 | Header TX selection open to user | <table><tr><td colspan="5">0: No</td></tr><tr><td colspan="5">1: Yes</td></tr></table> | 0: No | | | | | 1: Yes | | | | | 0 | | | | | | |
| 0: No | | | | | | | | | | | | | | | | | | | |
| 1: Yes | | | | | | | | | | | | | | | | | | | |
| 5 | Reserved | Reserved | 0 | 0 | | | | | | | | | | | | | | | |
| 4 | | | 0 | | | | | | | | | | | | | | | | |
| 3 | Transmit RTN signal level criteria | <table><tr><td>Percentage of error line</td><td>10%</td><td>15%</td><td>20%</td><td>25%</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Percentage of error line | | 10% | 15% | 20% | 25% | Bit No. 3 | 0 | 0 | 1 | 1 | Bit No. 2 | 0 | 1 | 0 | 1 | 0 |
| Percentage of error line | | 10% | 15% | | 20% | 25% | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | |
| 2 | 0 | | | | | | | | | | | | | | | | | | |
| 1 | Reserved | Reserved | 0 | | | | | | | | | | | | | | | | |

- Bit 2-3: In G3 mode, if error line for each page, machine will send RTN instead of RTN, in this case, some machine will resend the same page again. The retry times depend on other end.
- Bit 6: If this bit set to "0", the header select function can not change by user, only changeable by serviceman in service mode.

14.3.3 SOFT SWITCH: #03

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------------------------------|--|-----------------|-----------|--------|--------|-----------|-----------|--------|-----------|---|-----------|-----------|-----------|---|-----------|-----------|---|---|-----------|---|-----------|---|---|---|-----------|---|-----------|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Send out NSF frame with station ID | 1: Yes | 1 | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 0: No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Number of Pause within phone number | 0: No any limitation | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 1: Max. up to 2 "P" within inputted telephone number | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Re-dial prohibit for NO ANSWER | 0: Continue to dial | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 1: Not allowed to re-dial if no any FAX signal or detected busy tone after dialing | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Reserved | Reserved | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | RX level setting | <table><tr><td>RX level</td><td>-49 dB</td><td>-48 dB</td><td>-47 dB</td><td>-46 dB</td><td>-45 dB</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td></tr></table> | RX level | | -49 dB | -48 dB | -47 dB | -46 dB | -45 dB | Bit No. 4 | 0 | 0 | 0 | 0 | 0 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 |
| | | RX level | -49 dB | -48 dB | -47 dB | -46 dB | -45 dB | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Bit No. 4 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table><tr><td>RX level</td><td>-44 dB</td><td>-43 dB</td><td>-42 dB</td><td>-41 dB</td><td>-40 dB</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td></tr><tr><td>Bit No. 2</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td></tr><tr><td>Bit No. 1</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | | RX level | -44 dB | -43 dB | -42 dB | -41 dB | -40 dB | Bit No. 4 | 0 | 0 | 0 | 1 | 1 | Bit No. 3 | 1 | 1 | 1 | 0 | 0 | Bit No. 2 | 0 | 1 | 1 | 0 | 0 | Bit No. 1 | 1 | 0 | 1 | 0 | 1 | 1 | |
| RX level | | -44 dB | -43 dB | -42 dB | -41 dB | -40 dB | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 1 | 1 | 1 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 1 | 1 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table><tr><td>RX level</td><td>-39 dB</td><td>-38 dB</td><td>-37 dB</td><td>-36 dB</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>1</td><td>1</td><td>0</td><td>0</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | | RX level | -39 dB | -38 dB | -37 dB | -36 dB | Bit No. 4 | 1 | 1 | 1 | 1 | Bit No. 3 | 0 | 0 | 1 | 1 | Bit No. 2 | 1 | 1 | 0 | 0 | Bit No. 1 | 0 | 1 | 0 | 1 | 1 | | | | | | |
| RX level | | -39 dB | -38 dB | -37 dB | -36 dB | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 1 | 1 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table><tr><td>RX level</td><td colspan="2">Reserved</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td></tr></table> | RX level | Reserved | | Bit No. 4 | 1 | 1 | Bit No. 3 | 1 | 1 | Bit No. 2 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | |
| RX level | Reserved | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

- Bit 8: This bit set to 1, the answer machine will send machine name by NSF frame after connection.
- Bit 7: Can input Pause key to insert pause time between digits, this can put more than one "P" at the end of telephone number to increase calling time (T) after calling. In this case can use "P" to increase T1 time during calling to other parties.

14.3.4 SOFT SWITCH: #04

| Bit No. | Designation | Function | Initial Setting | |
|---------|------------------------------|---|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 0 |
| 7 | | | 0 | |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | Visible alarm for RTN signal | 0: No 1: Yes - display message while sending / receiving RTN signal (RTN= Retrain Negative). | 1 | C |
| 3 | Audible alarm for RTN signal | 0: No 1: Yes - alarm for sending or receiving RTN signal. | 1 | |
| 2 | Reserved | Reserved | 0 | |
| 1 | | | 0 | |

- Bit 3: The duration of alarm last 3 second after detect negative signal in G3 mode.
- Bit 4: The display message will keep on LCD 3 seconds or until next incoming T30 signal.

14.3.5 SOFT SWITCH: #05

| Bit No. | Designation | Function | Initial Setting | | | | | |
|-----------|--|---------------|---------------------|-------------------|--------------------|-------------------|---|---|
| | | | Bit | HEX | | | | |
| 8 | Push button ON/OFF Timing (PB) | Timing (ms) | ON: 100 OFF: 140 | ON: 70 OFF: 70 | ON: 70 OFF: 140 | ON: 90 OFF: 90 | 0 | |
| 7 | | Bit No. 8 | 0 | 0 | 1 | 1 | 0 | |
| | | Bit No. 7 | 0 | 1 | 0 | 1 | | |
| 6 | Relation between 10 key # & No.of dial pulse | #1 | 1 | 2 | 9 | Reserved | 0 | 0 |
| 5 | | #2 | 2 | 3 | 8 | | | |
| | | #3 | 3 | 4 | 7 | | | |
| | | #4 | 4 | 5 | 6 | | | |
| | | #5 | 5 | 6 | 5 | | | |
| | | #6 | 6 | 7 | 4 | | | |
| | | #7 | 7 | 8 | 3 | | | |
| | | #8 | 8 | 9 | 2 | | | |
| | | #9 | 9 | 10 | 1 | | | |
| | | #0 | 10 | 1 | 10 | | | |
| | | Bit No. 6 | 0 | 0 | 1 | 1 | 0 | |
| Bit No. 5 | | 0 | 1 | 0 | 1 | | | |
| 4 | Reserved | Reserved | | | | | 0 | |
| 3 | 10PPS/20PPS | 0: 10PPS | | | | | 0 | |
| | | 1: 20PPS | | | | | | |
| 2 | PPS ratio | PPS ratio (%) | 33 | 40 | 30 | Reserved | 0 | 0 |
| 1 | | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | |
| | | Bit No. 1 | 0 | 1 | 0 | 1 | | |

14.3.6 SOFT SWITCH: #06

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | |
|-------------|---|---|-----------------|--------|---------|--------|-----------|-----------|---|---|---|---|-----------|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | |
| 8 | Ring on time to ignore ring off time at 1st cycle | <table><tr><td>Timing (ms)</td><td>50 ms</td><td>100 ms</td><td>150 ms</td><td>800 ms</td></tr><tr><td>Bit No. 8</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 7</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Timing (ms) | 50 ms | 100 ms | 150 ms | 800 ms | Bit No. 8 | 0 | 0 | 1 | 1 | Bit No. 7 | 0 | 1 | 0 | 1 | 0 | 4 |
| Timing (ms) | | 50 ms | 100 ms | 150 ms | 800 ms | | | | | | | | | | | | | | |
| Bit No. 8 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | |
| Bit No. 7 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | |
| 7 | <table><tr><td>Bit No. 8</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 7</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Bit No. 8 | 0 | 0 | 1 | 1 | Bit No. 7 | 0 | 1 | 0 | 1 | 1 | | | | | | | |
| Bit No. 8 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | |
| Bit No. 7 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | |
| 6 | Reserved | Reserved | 0 | | | | | | | | | | | | | | | | |
| 5 | | | 0 | | | | | | | | | | | | | | | | |
| 4 | Ring off time at 1st cycle to approve incoming ring | <table><tr><td>Timing (ms)</td><td>100 ms</td><td>250 ms</td><td>500 ms</td><td>1000 ms</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Timing (ms) | 100 ms | 250 ms | 500 ms | 1000 ms | Bit No. 4 | 0 | 0 | 1 | 1 | Bit No. 3 | 0 | 1 | 0 | 1 | 1 | C |
| Timing (ms) | | 100 ms | 250 ms | 500 ms | 1000 ms | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | |
| 3 | <table><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Bit No. 4 | 0 | 0 | 1 | 1 | Bit No. 3 | 0 | 1 | 0 | 1 | 1 | | | | | | | |
| Bit No. 4 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | |
| 2 | Reserved | Reserved | 0 | | | | | | | | | | | | | | | | |
| 1 | | | 0 | | | | | | | | | | | | | | | | |

14.3.7 SOFT SWITCH: #07

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|--|--|-----------------|-----|-----|-----|-----|-----|-----|-----|-----------|-----|-----------|---|---|---|---|---|---|-----------|---|-----------|---|---|---|---|---|---|-----------|---|-----------|---|---|---|---|---|---|-----------|---|-----------|---|---|---|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Dial tone or busy tone detection | 0: Disable 1: Enable - Detect dial tone before dial | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | PSTN/PBX setting | 0: PSTN 1: PBX - Select PBX line type | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | PBX dial tone detect | 0: Not to detect dial tone before pre-fix number 1: Detect dial tone before the pre-fix number in PBX mode | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Dial mode select | 0: DTMF - PB 1: Pulse - DP | 0 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | TX level select for PSK/FSK | <table><tr><td>Level (dBm)</td><td>-17</td><td>-16</td><td>-15</td><td>-14</td><td>-13</td><td>-12</td><td>-11</td><td>-10</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Level (dBm) | | -17 | -16 | -15 | -14 | -13 | -12 | -11 | -10 | Bit No. 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Level (dBm) | | -17 | -16 | | -15 | -14 | -13 | -12 | -11 | -10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | <table><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Bit No. 3 | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | <table><tr><td>Level (dBm)</td><td>-9</td><td>-8</td><td>-7</td><td>-6</td><td>-5</td><td>-4</td><td>-3</td><td>-2</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Level (dBm) | -9 | -8 | -7 | -6 | -5 | -4 | -3 | -2 | Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | | |
| Level (dBm) | -9 | -8 | -7 | -6 | -5 | -4 | -3 | -2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | <table><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

14.3.8 SOFT SWITCH: #08

| Bit No. | Designation | Function | Initial Setting | |
|---------|-------------------------------------|---|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 6 |
| 7 | Detect busy tone after dialing | 0: Not to detect | 1 | |
| | | 1: Detect busy tone after dialing | | |
| 6 | Sending CED signal after connection | 0: Not to send | 1 | |
| | | 1: Send CED signal before DIS signal after connection | | |
| 5 | Reserved | Reserved | 0 | |
| 4 | | | 0 | 0 |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

14.3.9 SOFT SWITCH: #09

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | |
|---|--|--|---|----------|------------|----------|----------|-----------------------------|---|---|---|---|-----------|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | |
| 8 | Ringer frequency detection | <table><tr><td>Ringer frequency range (Hz)</td><td>10 to 75</td><td>20 to 57.5</td><td>20 to 75</td><td>10 to 75</td></tr><tr><td>Bit No. 8</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 7</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Ringer frequency range (Hz) | 10 to 75 | 20 to 57.5 | 20 to 75 | 10 to 75 | Bit No. 8 | 0 | 0 | 1 | 1 | Bit No. 7 | 0 | 1 | 0 | 1 | 0 | 0 |
| Ringer frequency range (Hz) | | 10 to 75 | 20 to 57.5 | 20 to 75 | 10 to 75 | | | | | | | | | | | | | | |
| Bit No. 8 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | |
| Bit No. 7 | | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | |
| 7 | | | 0 | | | | | | | | | | | | | | | | |
| 6 | Reserved | Reserved | 0 | | | | | | | | | | | | | | | | |
| 5 | TSI/CSI append “+” | <table><tr><td colspan="5">0: Not append “+” before send out TSI/CSI</td></tr><tr><td colspan="5">1: Automatically insert “+”</td></tr></table> | 0: Not append “+” before send out TSI/CSI | | | | | 1: Automatically insert “+” | | | | | 0 | | | | | | |
| 0: Not append “+” before send out TSI/CSI | | | | | | | | | | | | | | | | | | | |
| 1: Automatically insert “+” | | | | | | | | | | | | | | | | | | | |
| 4 | Reserved | Reserved | 0 | 0 | | | | | | | | | | | | | | | |
| 3 | | | 0 | | | | | | | | | | | | | | | | |
| 2 | Time from RX DIS signal to send DCS signal | <table><tr><td>Description</td><td>70 ms</td><td>120 ms</td><td>180 ms</td><td>240 ms</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Description | 70 ms | 120 ms | 180 ms | 240 ms | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| Description | | 70 ms | 120 ms | 180 ms | 240 ms | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | |
| 1 | | | 0 | | | | | | | | | | | | | | | | |

- Bit 5: This bit set to "1", the "+" character will put in the first position on CSI and TSI command.

14.3.10 SOFT SWITCH: #10

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | |
|------------|--|---|-----------------|-----|-----|-----|-----|-----|-----------|---|---|---|---|-----------|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | |
| 8 | Print out RTN page report | 0: Not to print 1: Print out RTN page report after transaction for TX/ RX RTN signal | 1 | A | | | | | | | | | | | | | | | |
| 7 | Confirmation report result field | 0: Print “OK” 1: Print “NG” in case of sending or receiving RTN signal | 0 | | | | | | | | | | | | | | | | |
| 6 | Get gap time between digit for pulse dial | <table><tr><td>Value (ms)</td><td>550</td><td>650</td><td>750</td><td>850</td></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Value (ms) | | 550 | 650 | 750 | 850 | Bit No. 6 | 0 | 0 | 1 | 1 | Bit No. 5 | 0 | 1 | 0 | 1 | 1 |
| Value (ms) | | 550 | 650 | | 750 | 850 | | | | | | | | | | | | | |
| Bit No. 6 | 0 | 0 | 1 | | 1 | | | | | | | | | | | | | | |
| Bit No. 5 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | |
| 5 | | | 0 | | | | | | | | | | | | | | | | |
| 4 | RX PIP T.30 command after send out MPS command | 0: Send DCS at current speed 1: Return to Tx phase B waiting for DIS signal | 0 | 1 | | | | | | | | | | | | | | | |
| 3 | Received DIS signal within reception | 0: Repeat sending DIS/DTC again until time out 1: Disconnected after sending DCN signal | 0 | | | | | | | | | | | | | | | | |
| 2 | Transmission time limitation | 1: Limit to 8 minutes from data phase 0: No any limitation until document jam | 0 | | | | | | | | | | | | | | | | |
| 1 | Audio alarm after communication fail | 0: Not to alarm after transaction fail 1: Alarm 3 seconds after disconnected | 1 | | | | | | | | | | | | | | | | |

- Bit 8: If this bit set to 1, machine will print out confirmation report after each transaction.
- Bit 7: If this bit set to 1, the result field will show "NG" instead of "OK" in the confirmation report and activity report or checking the result on the LCD.
- Bit 2: This for manual TX only.

14.3.11 SOFT SWITCH: #11

| Bit No. | Designation | Function | Initial Setting | |
|---------|---------------------------------------|--|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 2 |
| 7 | Detect dial tone after pre-fix number | 0: No | 0 | |
| | | 1: Yes | 0 | |
| 6 | Pulse dial allowed to select | 0: Yes | 1 | |
| | | 1: Not allowed | 0 | |
| 5 | Protocol signal display mode | 0: Not to display | 0 | 0 |
| | | 1: Display V8 or T30 command within communication. | 0 | |
| 4 | Reserved | Reserved | 0 | |
| 3 | Reserved | Reserved | 0 | |
| 2 | USB port number fixed | 0: OFF | 0 | |
| | | 1: ON | 0 | |
| 1 | DTMF low frequency compensation | 0: Base on SW23 (1 to 4) | 0 | |
| | | 1: High 0.5 dB | 0 | |

- Bit 6: If this bit set to 1, not allowed user to select pulse dial, and this function open serviceman to change.
- Bit 5: Bit set to 1, LCD will show the command between each party, the detail specification see service mode specification.

14.3.12 SOFT SWITCH: #12

| Bit No. | Designation | Function | Initial Setting | |
|---------|--|--|-----------------|-----|
| | | | Bit | HEX |
| 8 | ECM mode capability | 1: Yes | 1 | 8 |
| | | 0: No - also disable V.34 modem capability | 0 | |
| 7 | V.34 fall back counter for V.34 TX | Counter | 1 | |
| | | Bit No. 7 | 0 | |
| 6 | | Bit No. 6 | 0 | |
| | | Bit No. 5 | 1 | |
| 5 | Send CTC after 4th PPR | 0: Send CTC (Continue To Correct) | 0 | 0 |
| | | 1: Send EOR (End Of Transmission) | 0 | |
| 4 | Reserved | Reserved | 0 | |
| 3 | Send EOR after low-est speed | 0: Send DCN (Re-dial) | 0 | |
| | | 1: Send EOR_xxx [Germany PTT] | 0 | |
| 2 | TCF transmission timing after DCS signal | Description (ms) | 70 | 0 |
| | | Bit No. 2 | 0 | |
| 1 | | Bit No. 1 | 0 | |
| | | Bit No. 0 | 1 | |

- Bit 1-2: Delay time from FSK mode to PSK mode, this use for G3 mode only, V.34 do not need this setting.
- Bit 6-7: If counter equal "1", machine will down to next lower speed for next data phase.

14.3.13 SOFT SWITCH: #13

| Bit No. | Designation | Function | Initial Setting | |
|---------|--|---|-----------------|-----|
| | | | Bit | HEX |
| 8 | MR capability for G3 | 0: Yes 1: No | 0 | 1 |
| 7 | Delay time between transaction | Description (sec) 20 60 120 240 | 0 | |
| | | Bit No. 7 0 0 1 1 | 0 | |
| 6 | | Bit No. 6 0 1 0 1 | 0 | |
| 5 | Super fine printing capability for receiving | 0: No 1: Yes | 1 | 0 |
| 4 | Reserved | Reserved | 0 | |
| 3 | DTS mode | 0: No 1: Yes | 0 | |
| 2 | Send DTC signal if RX DIS signal in manual RX mode (no function on G4) | 1: No - send DIS again 0: Yes | 0 | |
| 1 | Reserved | Reserved | 0 | |

- Bit 7-6: If set to 1, the time between each transaction will become longer, in this case machine will wait more time before start to dial next transaction.

14.3.14 SOFT SWITCH: #14

| Bit No. | Designation | Function | Initial Setting | |
|---------|---|--|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 0 |
| 7 | | | 0 | |
| 6 | Memory size level to RX | 1: Up to 128 KB 0: Base on system configuration | 0 | |
| 5 | | | 0 | |
| 4 | Reserved | Reserved | 0 | 2 |
| 3 | | | 0 | |
| 2 | Time between V.34 ANSam signal and FSK DIS signal | Timer (ms) 430 440 450 460 470 480 490 500 | 1 | |
| | | Bit No. 3 0 0 0 0 1 1 1 1 | 0 | |
| 1 | | Bit No. 2 0 0 1 1 0 0 1 1 Bit No. 1 0 1 0 1 0 1 0 1 | 0 | |

- Bit 6: If set to 1, machine will become manual RX mode if available memory size less than 128 K

14.3.15 SOFT SWITCH: #15

| Bit No. | Designation | Function | Initial Setting | |
|---------|-------------|---|-----------------|-----|
| | | | Bit | HEX |
| 8 | IPSEL1 | 0: Close the IPSEL1 port 1: Active the IPSEL1 port | 0 | 0 |
| 7 | DCSEL | 0: Close the DCSEL port 1: Active the DCSEL port | 0 | |
| 6 | DCLIM | 0: Close the DCLIM port 1: Active the DCLIM port | 0 | |
| 5 | Reserved | Reserved | 0 | |
| 4 | | | 0 | 0 |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

14.3.16 SOFT SWITCH: #16

| Bit No. | Designation | Function | Initial Setting | |
|---------|---------------------------------|--|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 0 |
| 7 | | | 0 | |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | | | 0 | 3 |
| 3 | | | 0 | |
| 2 | Fax communication coding method | Coding method MMR MR MH JBIG | 1 | |
| | | Bit No. 2 0 0 1 1 | 1 | |
| 1 | | Bit No. 1 0 1 0 1 | 1 | |

14.3.17 SOFT SWITCH: #17

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | | | | | | |
|-------------|--|---|-----------------|----------------------|-------------|-------------|-------------|-----------|---|---|---|-----------|-----------|---|---|---|-----------|-----------|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | | | | | | |
| 8 | Reserved | Reserved | 0 | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | 0 | | | | | | | | | | | | | | | | | | | | | |
| 6 | CED frequency | 0: 2100 Hz 1: 1100 Hz | 0 | 0 | | | | | | | | | | | | | | | | | | | | |
| 5 | Pause between off hook and CED signal | <table><tr><td>Time (T)</td><td>T=1.8 sec to 2.5 sec</td><td>T+ 100 ms</td><td>T+ 200 ms</td><td>T+ 300 ms</td></tr><tr><td>Bit No. 5</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time (T) | T=1.8 sec to 2.5 sec | T+ 100 ms | T+ 200 ms | T+ 300 ms | Bit No. 5 | 0 | 0 | 0 | 0 | Bit No. 4 | 0 | 0 | 1 | 1 | Bit No. 3 | 0 | 1 | 0 | 1 | 0 | 0 |
| Time (T) | | T=1.8 sec to 2.5 sec | T+ 100 ms | T+ 200 ms | T+ 300 ms | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | |
| 4 | | <table><tr><td>Time (T)</td><td>T+ 400 ms</td><td>T+ 500 ms</td><td>T+ 600 ms</td><td>T+ 700 ms</td></tr><tr><td>Bit No. 5</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time (T) | T+ 400 ms | T+ 500 ms | T+ 600 ms | T+ 700 ms | Bit No. 5 | 1 | 1 | 1 | 1 | Bit No. 4 | 0 | 0 | 1 | 1 | Bit No. 3 | 0 | 1 | 0 | 1 | 0 | |
| Time (T) | T+ 400 ms | T+ 500 ms | T+ 600 ms | T+ 700 ms | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | |
| 3 | <table><tr><td>Time (T)</td><td>T+ 400 ms</td><td>T+ 500 ms</td><td>T+ 600 ms</td><td>T+ 700 ms</td></tr><tr><td>Bit No. 5</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time (T) | T+ 400 ms | T+ 500 ms | T+ 600 ms | T+ 700 ms | Bit No. 5 | 1 | 1 | 1 | 1 | Bit No. 4 | 0 | 0 | 1 | 1 | Bit No. 3 | 0 | 1 | 0 | 1 | 0 | | |
| Time (T) | T+ 400 ms | T+ 500 ms | T+ 600 ms | T+ 700 ms | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | |
| 2 | Inactivity timer [T5] | <table><tr><td>Description</td><td>T5</td><td>T5 + 20 sec</td><td>T5 + 40 sec</td><td>T5 + 60 sec</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Description | T5 | T5 + 20 sec | T5 + 40 sec | T5 + 60 sec | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | | | | | | |
| Description | | T5 | T5 + 20 sec | T5 + 40 sec | T5 + 60 sec | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | |
| 1 | | | 0 | | | | | | | | | | | | | | | | | | | | | |

- T5: 60 ± 5 sec. in ITU-T standard

14.3.18 SOFT SWITCH: #18

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|-----------------------------------|---|-----------------|--------|--------|--------|--------|-----------|---|---|----|---|-----------|-----------|---|---|---|---|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Reserved | Reserved | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | G3 mode training quality level | <table><tr><th>Definition</th><th>Level1</th><th>Level2</th><th>Level3</th><th>Level4</th></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Definition | Level1 | Level2 | Level3 | Level4 | Bit No. 6 | 0 | 0 | 1 | 1 | Bit No. 5 | 0 | 1 | 0 | 1 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Definition | | Level1 | Level2 | Level3 | Level4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Redefine re-dial attempts counter | <table><tr><th>Counter</th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th><th>10</th></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 2</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td></tr><tr><td>Bit No. 1</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td></tr></table> | Counter | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Bit No. 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | Bit No. 3 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | Bit No. 2 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | Bit No. 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 |
| Counter | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

- Bit 5-6: Level 1 training check phases are not so severe than level 2,3,4. Level 2,3,4 can keep higher RX speed communication than level 1 for poor line condition.

14.3.19 SOFT SWITCH: #19

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|--|--|-----------------|-----|-----|-----|-----|-----|-----|-----|-----------|-----------|---|---|---|---|---|---|---|-----------|-----------|---|---|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | CNG signal level | <table><tr><td>Level (dBm)</td><td>-17</td><td>-16</td><td>-15</td><td>-14</td><td>-13</td><td>-12</td><td>-11</td><td>-10</td></tr><tr><td>Bit No. 8</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 7</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Level (dBm) | -17 | -16 | -15 | -14 | -13 | -12 | -11 | -10 | Bit No. 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bit No. 7 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 6 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 5 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 6 |
| Level (dBm) | | -17 | -16 | -15 | -14 | -13 | -12 | -11 | -10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 8 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 7 | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | <table><tr><td>Bit No. 7</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Bit No. 7 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 6 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 5 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | |
| Bit No. 7 | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | <table><tr><td>Level (dBm)</td><td>-9</td><td>-8</td><td>-7</td><td>-6</td><td>-5</td><td>-4</td><td>-3</td><td>-2</td></tr><tr><td>Bit No. 8</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 7</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Level (dBm) | -9 | -8 | -7 | -6 | -5 | -4 | -3 | -2 | Bit No. 8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 7 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 6 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 5 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | |
| Level (dBm) | | -9 | -8 | -7 | -6 | -5 | -4 | -3 | -2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 7 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | <table><tr><td>Bit No. 7</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Bit No. 7 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 6 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 5 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | | |
| Bit No. 7 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | DTMF high frequency level | <table><tr><td>Level (dBm)</td><td>-17</td><td>-16</td><td>-15</td><td>-14</td><td>-13</td><td>-12</td><td>-11</td><td>-10</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Level (dBm) | -17 | -16 | -15 | -14 | -13 | -12 | -11 | -10 | Bit No. 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 8 |
| Level (dBm) | | -17 | -16 | -15 | -14 | -13 | -12 | -11 | -10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | <table><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | <table><tr><td>Level (dBm)</td><td>-9</td><td>-8</td><td>-7</td><td>-6</td><td>-5</td><td>-4</td><td>-3</td><td>-2</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Level (dBm) | -9 | -8 | -7 | -6 | -5 | -4 | -3 | -2 | Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | |
| Level (dBm) | | -9 | -8 | -7 | -6 | -5 | -4 | -3 | -2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | <table><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

14.3.20 SOFT SWITCH: #20

| Bit No. | Designation | Function | Initial Setting | |
|---------|-------------|----------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 0 |
| 7 | | | 0 | |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | | | 0 | 0 |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

14.3.21 SOFT SWITCH: #21

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | |
|---------------------|--|---|---------------------|-----|---------|---------|---------|---------|-----------|---|---|---|---|-----------|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | |
| 8 | NSS signal before DCS | 0: Not to send NSS signal for self mode in TX mode 1: Send NSS signal if remote side is same model | 1 | 8 | | | | | | | | | | | | | | | |
| 7 | CNG sending duration after dialing | <table><tr><td>Duration (unit=sec)</td><td>40</td><td>60</td><td>70</td><td>120</td></tr><tr><td>Bit No. 7</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 6</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Duration (unit=sec) | | 40 | 60 | 70 | 120 | Bit No. 7 | 0 | 0 | 1 | 1 | Bit No. 6 | 0 | 1 | 0 | 1 | 0 |
| Duration (unit=sec) | | 40 | 60 | | 70 | 120 | | | | | | | | | | | | | |
| Bit No. 7 | 0 | 0 | 1 | | 1 | | | | | | | | | | | | | | |
| Bit No. 6 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | |
| 6 | | | 0 | | | | | | | | | | | | | | | | |
| 5 | T4 timer | 0: 3.0 sec. Normal case 1: 4.5 sec. | 0 | | | | | | | | | | | | | | | | |
| 4 | VOIP (Voice over IP) | 0: Disable 1: Enable | 0 | 0 | | | | | | | | | | | | | | | |
| 3 | DIS signal length | 0: Normal length (Bit 1 to 64) 1: 4 bytes DIS command. bit 1 to 32 only | 0 | | | | | | | | | | | | | | | | |
| 2 | Increase default T1 timing during calling (Only for TX function) | <table><tr><td>Description (sec)</td><td>T1</td><td>T1 + 30</td><td>T1 + 40</td><td>T1 + 60</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Description (sec) | | T1 | T1 + 30 | T1 + 40 | T1 + 60 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 |
| Description (sec) | | T1 | T1 + 30 | | T1 + 40 | T1 + 60 | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | |
| 1 | | | 0 | | | | | | | | | | | | | | | | |

- Bit 1-2: T1 indicate the calling time after dialing, can adjust the T1 time more long by change the default value. The default T1 timer depends on each country regulation.
- Bit 3: Some old machine can not accept DIS command over 4 bytes, and every time will become fail. In this case can set this bit to 1. If this bit set to 1, JBIG and V8 capability will disable automatically.
- Bit 8: Sender machine's name will show on the other party's LCD or print on the report if remote side is the same model.

14.3.22 SOFT SWITCH: #22

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|--|--|-----------------|-----|-----|-----|-----|-----|-----|-----|-----------|-----------|---|---|---|---|---|---|---|-----------|-----------|---|---|---|---|---|---|---|-----------|-----------|---|---|---|---|---|---|---|-----------|-----------|---|---|---|---|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Reserved | Reserved | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | CED signal output level | <table><tr><td>Level (dBm)</td><td>-17</td><td>-16</td><td>-15</td><td>-14</td><td>-13</td><td>-12</td><td>-11</td><td>-10</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Level (dBm) | -17 | -16 | -15 | -14 | -13 | -12 | -11 | -10 | Bit No. 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 6 |
| Level (dBm) | | -17 | -16 | -15 | -14 | -13 | -12 | -11 | -10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | <table><tr><td>Level (dBm)</td><td>-9</td><td>-8</td><td>-7</td><td>-6</td><td>-5</td><td>-4</td><td>-3</td><td>-2</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Level (dBm) | -9 | -8 | -7 | -6 | -5 | -4 | -3 | -2 | Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | |
| Level (dBm) | | -9 | -8 | -7 | -6 | -5 | -4 | -3 | -2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | <table><tr><td>Level (dBm)</td><td>-9</td><td>-8</td><td>-7</td><td>-6</td><td>-5</td><td>-4</td><td>-3</td><td>-2</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Level (dBm) | -9 | -8 | -7 | -6 | -5 | -4 | -3 | -2 | Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | | |
| Level (dBm) | -9 | -8 | -7 | -6 | -5 | -4 | -3 | -2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | <table><tr><td>Level (dBm)</td><td>-9</td><td>-8</td><td>-7</td><td>-6</td><td>-5</td><td>-4</td><td>-3</td><td>-2</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Level (dBm) | -9 | -8 | -7 | -6 | -5 | -4 | -3 | -2 | Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | | |
| Level (dBm) | -9 | -8 | -7 | -6 | -5 | -4 | -3 | -2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

14.3.23 SOFT SWITCH: #23

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|--|--|-----------------|-----|-----|-----|-----|-----|-----|----|-----------|-----------|---|---|---|---|---|---|---|-----------|-----------|---|---|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Reserved | Reserved | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | DTMF low frequency level | <table><tr><td>Level (dBm)</td><td>-15</td><td>-14</td><td>-13</td><td>-12</td><td>-11</td><td>-10</td><td>-9</td><td>-8</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Level (dBm) | -15 | -14 | -13 | -12 | -11 | -10 | -9 | -8 | Bit No. 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 4 |
| Level (dBm) | | -15 | -14 | -13 | -12 | -11 | -10 | -9 | -8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | <table><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | <table><tr><td>Level (dBm)</td><td>-7</td><td>-6</td><td>-5</td><td>-4</td><td>-3</td><td>-2</td><td>-1</td><td>0</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Level (dBm) | -7 | -6 | -5 | -4 | -3 | -2 | -1 | 0 | Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | |
| Level (dBm) | | -7 | -6 | -5 | -4 | -3 | -2 | -1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | <table><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

14.3.24 SOFT SWITCH: #24 (Part 1)

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | |
|---------|------------------|-----------------|-----------------|-----|----|----|----|----|----|----|----|----|----|---|
| | | | Bit | HEX | | | | | | | | | | |
| 8 | Reserved | Reserved | 0 | 0 | | | | | | | | | | |
| 7 | Re-dial interval | Interval (min.) | Reserved | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| | | Bit No. 7 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Bit No. 6 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Bit No. 5 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Bit No. 4 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| | | Bit No. 3 | 0 | | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| | | Bit No. 2 | 0 | | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
| 6 | | Bit No. 1 | 0 | | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| | | Interval (min.) | 11 | | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| | | Bit No. 7 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Bit No. 6 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Bit No. 5 | 0 | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| | | Bit No. 4 | 1 | | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Bit No. 3 | 0 | | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | |
| 5 | | Bit No. 2 | 1 | | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | |
| | | Bit No. 1 | 1 | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | |
| | | Interval (min.) | 21 | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | |
| | | Bit No. 7 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Bit No. 6 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Bit No. 5 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | | Bit No. 4 | 0 | | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 4 | | Bit No. 3 | 1 | | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| | | Bit No. 2 | 0 | | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | |
| | | Bit No. 1 | 1 | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | |
| | | Interval (min.) | 31 | | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | |
| | | Bit No. 7 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Bit No. 6 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | | Bit No. 5 | 1 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | | Bit No. 4 | 1 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | | Bit No. 3 | 1 | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 |
| | | Bit No. 2 | 1 | | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | |
| | | Bit No. 1 | 1 | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | |
| | | Interval (min.) | 41 | | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | |
| | | Bit No. 7 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Bit No. 6 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | | Bit No. 5 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| | | Bit No. 4 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| | | Bit No. 3 | 0 | | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| | | Bit No. 2 | 0 | | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | |
| | | Bit No. 1 | 1 | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | |
| | | Interval (min.) | 41 | | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | |
| | | Bit No. 7 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | | Bit No. 6 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | | Bit No. 5 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| | | Bit No. 4 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| | | Bit No. 3 | 0 | | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| | | Bit No. 2 | 0 | | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | |
| | | Bit No. 1 | 1 | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | |

14.3.25 SOFT SWITCH: #24 (Part 2)

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | |
|-----------------|------------------|-----------------|-----------------|-----|----|----|----|----|----|----|----|----|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | |
| 7 | Re-dial interval | Interval (min.) | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 0 | 2 | |
| | | Bit No. 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 |
| | | Bit No. 6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | 1 |
| | | Bit No. 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | 1 |
| | | Bit No. 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | | | 1 |
| | | Bit No. 3 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | | | 1 |
| | | Bit No. 2 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | | | 0 |
| Bit No. 1 | | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | | |
| Interval (min.) | | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | | | | |
| Bit No. 7 | | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| Bit No. 6 | | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Bit No. 5 | | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Bit No. 4 | | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Bit No. 3 | | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | |
| Bit No. 2 | | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | | |
| Bit No. 1 | | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | | | |
| Interval (min.) | | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | | | | |
| Bit No. 7 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| Bit No. 6 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Bit No. 5 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | | |
| Bit No. 4 | | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | | | |
| Bit No. 3 | | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | | |
| Bit No. 2 | | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | | | |
| Bit No. 1 | | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | | | |
| Interval (min.) | | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | | | | |
| Bit No. 7 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| Bit No. 6 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Bit No. 5 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| Bit No. 4 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | | |
| Bit No. 3 | | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | | | |
| Bit No. 2 | | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | | | |
| Bit No. 1 | | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | |
| Interval (min.) | | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | | | | | |
| Bit No. 7 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| Bit No. 6 | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | | | |
| Bit No. 5 | | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Bit No. 4 | | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | | | |
| Bit No. 3 | | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | | | |
| Bit No. 2 | | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | | | |
| Bit No. 1 | | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | |
| Interval (min.) | | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | | | | | |
| Bit No. 7 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |

14.3.26 SOFT SWITCH: #24 (Part 3)

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | |
|---------|------------------|-----------------|-----------------|-----|---|---|---|---|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | |
| 7 | Re-dial interval | Interval (min.) | Reserved | | | | | | | | | | 0 | 2 |
| 6 | | Bit No. 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | | Bit No. 6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | | Bit No. 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | Bit No. 4 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | | Bit No. 3 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | | |
| 5 | | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | | |
| | | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | |
| | | Interval (min.) | Reserved | | | | | | | | | | 0 | |
| 4 | | Bit No. 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | | Bit No. 6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | | Bit No. 5 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | | Bit No. 4 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | Bit No. 3 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | |
| 3 | | Bit No. 2 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | |
| | | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | |
| | | Interval (min.) | Reserved | | | | | | | | | | 0 | |
| 2 | | Bit No. 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | | Bit No. 6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | | Bit No. 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | | Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| 1 | | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | | |
| | | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | |
| | | Interval (min.) | Reserved | | | | | | | | | | 1 | |

14.3.27 SOFT SWITCH: #25

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | |
|-----------------|-----------------|---|-----------------|-----|----|----|----|-----------|---|---|---|---|-----------|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | |
| 8 | Reserved | Reserved | 0 | 0 | | | | | | | | | | | | | | | |
| 7 | | | 0 | | | | | | | | | | | | | | | | |
| 6 | | | 0 | | | | | | | | | | | | | | | | |
| 5 | | | 0 | | | | | | | | | | | | | | | | |
| 4 | Flash key time | <table><tr><td>Flash time (ms)</td><td>100</td><td>80</td><td>60</td><td>50</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Flash time (ms) | 100 | 80 | 60 | 50 | Bit No. 4 | 0 | 0 | 1 | 1 | Bit No. 3 | 0 | 1 | 0 | 1 | 0 | 0 |
| Flash time (ms) | | 100 | 80 | 60 | 50 | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | |
| 3 | <table></table> | 0 | | | | | | | | | | | | | | | | | |
| 2 | <table></table> | 0 | | | | | | | | | | | | | | | | | |
| 1 | Reserved | Reserved | 0 | | | | | | | | | | | | | | | | |

14.3.28 SOFT SWITCH: #26

| Bit No. | Designation | Function | Initial Setting | |
|---------|--|-----------------------------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Dial tone detection time before disconnected | Time (unit=sec) 10 15 20 25 | 0 | 0 |
| | | Bit No. 8 0 0 1 1 | | |
| 7 | | Bit No. 7 0 1 0 1 | 0 | |
| 6 | Reserved | Reserved | 0 | 0 |
| 5 | | | 0 | |
| 4 | | | 0 | |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

14.3.29 SOFT SWITCH: #27

| Bit No. | Designation | Function | Initial Setting | |
|---------|-------------|----------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 0 |
| 7 | | | 0 | |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | | | 0 | 0 |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

14.3.30 SOFT SWITCH: #28

| Bit No. | Designation | Function | Initial Setting | |
|---------|--|---|-----------------|-----|
| | | | Bit | HEX |
| 8 | Time to dial after dial tone on the line | Time (ms) 0 100 200 300 400 500 600 700 | 1 | A |
| | | Bit No. 8 0 0 0 0 0 0 0 | | |
| | | Bit No. 7 0 0 0 0 1 1 1 | | |
| | | Bit No. 6 0 0 1 1 0 0 1 | | |
| | | Bit No. 5 0 1 0 1 0 1 0 | | |
| 7 | | | 0 | |
| 6 | | Time (ms) 800 900 1000 1100 1200 1300 1400 1500 | 1 | |
| | | Bit No. 8 1 1 1 1 1 1 1 | | |
| | CED duration time within calling period | Bit No. 7 0 0 0 0 1 1 1 | | 7 |
| | | Bit No. 6 0 0 1 1 0 0 1 | | |
| | | Bit No. 5 0 1 0 1 0 1 0 | | |
| 4 | | Time (ms) 0 100 200 300 400 500 600 700 | 0 | |
| | | Bit No. 4 0 0 0 0 0 0 0 | | |
| | | Bit No. 3 0 0 0 0 1 1 1 | | |
| | | Bit No. 2 0 0 1 1 0 0 1 | | |
| | | Bit No. 1 0 1 0 1 0 1 0 | | |
| 3 | | | 1 | |
| 2 | | Time (ms) 800 900 1000 1100 1200 1300 1400 1500 | 1 | |
| | | Bit No. 4 1 1 1 1 1 1 1 | | |
| | | Bit No. 3 0 0 0 0 1 1 1 | | |
| | | Bit No. 2 0 0 1 1 0 0 1 | | |
| | | Bit No. 1 0 1 0 1 0 1 0 | | |
| 1 | | | 1 | |

- Bit 1-4: The CED duration time level for automatic transmaton

14.3.31 SOFT SWITCH: #29

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|--|-----------------|-----|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----------|-----------|---|---|-----------|---|---|---|---|---|---|-----------|-----------|---|---|---|---|---|---|---|---|---|-----------|-----------|---|---|---|---|---|---|---|---|---|-----------|-----------|---|---|---|---|---|---|---|---|---|-----------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Reserved | Reserved | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Time to dial after seize the line when dial tone detection (Unit= 200 msec) | <table><tr><td>Time (sec)</td><td>0</td><td>0.2</td><td>0.4</td><td>0.6</td><td>0.8</td><td>1.0</td><td>1.2</td><td>1.4</td><td>1.6</td><td>1.8</td></tr><tr><td>Bit No. 5</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time (sec) | 0 | 0.2 | 0.4 | 0.6 | 0.8 | 1.0 | 1.2 | 1.4 | 1.6 | 1.8 | Bit No. 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bit No. 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 4 |
| Time (sec) | | 0 | 0.2 | 0.4 | 0.6 | 0.8 | 1.0 | 1.2 | 1.4 | 1.6 | 1.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | <table><tr><td>Time (sec)</td><td>2.0</td><td>2.2</td><td>2.4</td><td>2.6</td><td>2.8</td><td>3.0</td><td>3.2</td><td>3.4</td><td>3.6</td><td>3.8</td></tr><tr><td>Bit No. 5</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 2</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time (sec) | 2.0 | 2.2 | 2.4 | 2.6 | 2.8 | 3.0 | 3.2 | 3.4 | 3.6 | 3.8 | Bit No. 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | Bit No. 3 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | Bit No. 2 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | |
| Time (sec) | | 2.0 | 2.2 | 2.4 | 2.6 | 2.8 | 3.0 | 3.2 | 3.4 | 3.6 | 3.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | <table><tr><td>Time (sec)</td><td>4.0</td><td>4.2</td><td>4.4</td><td>4.6</td><td>4.8</td><td>5.0</td><td>5.2</td><td>5.4</td><td>5.6</td><td>5.8</td></tr><tr><td>Bit No. 5</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time (sec) | 4.0 | 4.2 | 4.4 | 4.6 | 4.8 | 5.0 | 5.2 | 5.4 | 5.6 | 5.8 | Bit No. 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 4 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 3 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | |
| Time (sec) | | 4.0 | 4.2 | 4.4 | 4.6 | 4.8 | 5.0 | 5.2 | 5.4 | 5.6 | 5.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | <table><tr><td>Time (sec)</td><td>4.0</td><td>4.2</td><td>4.4</td><td>4.6</td><td>4.8</td><td>5.0</td><td>5.2</td><td>5.4</td><td>5.6</td><td>5.8</td></tr><tr><td>Bit No. 5</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time (sec) | 4.0 | 4.2 | 4.4 | 4.6 | 4.8 | 5.0 | 5.2 | 5.4 | 5.6 | 5.8 | Bit No. 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 4 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 3 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | | |
| Time (sec) | 4.0 | 4.2 | 4.4 | 4.6 | 4.8 | 5.0 | 5.2 | 5.4 | 5.6 | 5.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | <table><tr><td>Time (sec)</td><td>6.0</td><td>6.2</td></tr><tr><td>Bit No. 5</td><td>1</td><td>1</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td></tr></table> | Time (sec) | 6.0 | 6.2 | Bit No. 5 | 1 | 1 | Bit No. 4 | 1 | 1 | Bit No. 3 | 1 | 1 | Bit No. 2 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Time (sec) | 6.0 | 6.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

14.3.32 SOFT SWITCH: #30

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|--|---|-----------------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-------------|-----------------|-----------|---|---|---|---|---|---|---|---|---|-----------|-----------|-----------|---|---|---|---|---|---|---|---|---|-----------|-----------|-----------|---|---|---|---|---|---|---|---|---|-----------|-----------|-----------|---|---|---|---|---|---|---|---|---|-----------|-----------|-----------|---|---|---|---|---|---|---|---|---|-----------|-----------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Pause delay time within digits Ex. 002Pxxxxxx | <table><tr><td>Time (sec)</td><td>2.0</td><td>2.5</td><td>3.0</td><td>3.5</td></tr><tr><td>Bit No. 8</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 7</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time (sec) | 2.0 | 2.5 | 3.0 | 3.5 | Bit No. 8 | 0 | 0 | 1 | 1 | Bit No. 7 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Time (sec) | | 2.0 | 2.5 | 3.0 | 3.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 8 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 7 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Signal tone insensitivity (dBm) after dial for busy tone | <table><tr><td>Level (dBm)</td><td>0</td><td>-1</td><td>-2</td><td>-3</td><td>-4</td><td>-5</td><td>-6</td><td>-7</td><td>-8</td><td>-9</td><td>-10</td></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 5</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td></tr></table> | Level (dBm) | 0 | -1 | -2 | -3 | -4 | -5 | -6 | -7 | -8 | -9 | -10 | Bit No. 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bit No. 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bit No. 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 6 |
| Level (dBm) | | 0 | -1 | -2 | -3 | -4 | -5 | -6 | -7 | -8 | -9 | -10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | <table><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 5</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td></tr></table> | Bit No. 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bit No. 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bit No. 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | | | | | | | | | | | | | |
| Bit No. 6 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | <table><tr><td>Level (dBm)</td><td>-11</td><td>-12</td><td>-13</td><td>-14</td><td>-15</td><td>-16</td><td>-17</td><td>-18</td><td>-19</td><td>-20</td></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 5</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 3</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td></tr><tr><td>Bit No. 2</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>0</td></tr><tr><td>Bit No. 1</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>1</td><td>0</td></tr></table> | Level (dBm) | -11 | -12 | -13 | -14 | -15 | -16 | -17 | -18 | -19 | -20 | Bit No. 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bit No. 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | Bit No. 3 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | Bit No. 2 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | Bit No. 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 8 | |
| Level (dBm) | | -11 | -12 | -13 | -14 | -15 | -16 | -17 | -18 | -19 | -20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | <table><tr><td>Level (dBm)</td><td>-21</td><td>-22</td><td>-23</td><td>-24</td><td>-25</td><td>-26</td><td>-27</td><td>-28</td><td>-29</td><td>-30</td></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 5</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>1</td></tr><tr><td>Bit No. 1</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>0</td></tr></table> | Level (dBm) | -21 | -22 | -23 | -24 | -25 | -26 | -27 | -28 | -29 | -30 | Bit No. 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bit No. 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 4 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | Bit No. 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | | | |
| Level (dBm) | -21 | -22 | -23 | -24 | -25 | -26 | -27 | -28 | -29 | -30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | <table><tr><td>Level (dBm)</td><td>-31</td><td>-32</td><td>-33</td><td>-34</td><td>-35</td><td>-36</td><td>-37</td><td>-38</td><td>-39</td><td>-40</td></tr><tr><td>Bit No. 6</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 4</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td></tr><tr><td>Bit No. 3</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td></tr><tr><td>Bit No. 2</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>0</td></tr><tr><td>Bit No. 1</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>1</td><td>0</td></tr></table> | Level (dBm) | -31 | -32 | -33 | -34 | -35 | -36 | -37 | -38 | -39 | -40 | Bit No. 6 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bit No. 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | Bit No. 3 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | Bit No. 2 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | Bit No. 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | | | |
| Level (dBm) | -31 | -32 | -33 | -34 | -35 | -36 | -37 | -38 | -39 | -40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | <table><tr><td>Level (dBm)</td><td colspan="10">-41 to -50</td></tr><tr><td>Bit No. 6-1</td><td colspan="10">Setting disable</td></tr></table> | Level (dBm) | -41 to -50 | | | | | | | | | | Bit No. 6-1 | Setting disable | | | | | | | | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Level (dBm) | -41 to -50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6-1 | Setting disable | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

14.3.33 SOFT SWITCH: #31

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|-----------------------|--|-----------------|----------|---|---|---|---|-----------|----------|---|-----------|----|-----------|-----------|---|---|---|---|-----------|-----------|---|---|---|-----------|---|-----------|-----------|---|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Reserved | Reserved | 0 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Min re-dial interval | <table><tr><td>Interval</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td colspan="2">Reserved</td></tr><tr><td>Bit No. 7</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 6</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Interval | | 1 | 2 | 3 | 4 | 5 | Reserved | | Bit No. 7 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 6 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 5 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | |
| Interval | | | 1 | | 2 | 3 | 4 | 5 | Reserved | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 7 | | | 0 | | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | | | 0 | | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Max. re-dial attempts | <table><tr><td>Attempts</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 2</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td></tr><tr><td>Bit No. 1</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td></tr></table> | Attempts | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Bit No. 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | Bit No. 3 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | Bit No. 2 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | Bit No. 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | A |
| Attempts | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | <table><tr><td>Attempts</td><td colspan="5">Reserved</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Attempts | Reserved | | | | | Bit No. 4 | 1 | 1 | 1 | 1 | 1 | Bit No. 3 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 1 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Attempts | | | Reserved | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 1 | | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

14.3.34 SOFT SWITCH: #32

| Bit No. | Designation | Function | Initial Setting | |
|---------|-------------|----------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 0 |
| 7 | | | 0 | |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | | | 0 | 0 |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

14.3.35 SOFT SWITCH: #33

| Bit No. | Designation | Function | Initial Setting | |
|---------|--|-----------------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 4 |
| 7 | V.17 Echo protection tone | 0: off 1: On | 1 | |
| 6 | V.29 Echo protection tone | 0: Off 1: On | 0 | |
| 5 | Compromise equalize enable (CEQ) in the transmit path (TCEQ) | 0: No 1: Yes | 0 | |
| 4 | Compromise equalize enable (CEQ) in the receiver path (RCEQ) | 0: No 1: Yes | 0 | 0 |
| 3 | Reserved | Reserved | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

- Bit 4-5: V.17, V.29 and V.27 only

14.3.36 SOFT SWITCH: #34

| Bit No. | Designation | Function | Initial Setting | |
|---------|-------------|----------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 0 |
| 7 | | | 0 | |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | | | 0 | 0 |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

14.3.37 SOFT SWITCH: #35

| Bit No. | Designation | Function | Initial Setting | |
|---------|---------------------------------------|----------------------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Dial tone table switch time | Time (sec) | 1 | A |
| | | Bit No. 8 | 0 | |
| | | Bit No. 7 | 0 | |
| 7 | | | 0 | |
| 6 | Dial tone frequency upper range index | See Bit No. 1 to 3 | 1 | 0 |
| 5 | | | 0 | |
| 4 | | | 0 | |
| 3 | Dial tone frequency low range index | Frequency range (Hz) | 210 to 580 | 0 |
| | | 360 to 690 | 210 to 580 | |
| | | Bit No. 3 | 0 | |
| | | Bit No. 2 | 0 | |
| | | Bit No. 1 | 0 | |
| 2 | | Frequency range (Hz) | 360 to 690 | |
| | | 210 to 580 | Reserved | |
| | | Bit No. 3 | 0 | |
| | | Bit No. 2 | 1 | |
| | | Bit No. 1 | 1 | |
| 1 | | | 1 | |

14.3.38 SOFT SWITCH: #36

| Bit No. | Designation | Function | Initial Setting | |
|---------|--|---------------------------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Re-dial attempts continue fail counter (Using for detect line problem error) | 0: No any limitation | 1 | 8 |
| | | 1: Limit up to bit 1 to 4 | | |
| 7 | Reserved | Reserved | 0 | 0 |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | Re-dial attempts fail limitation counter (Using for detect line problem error) | Counter | 0 | A |
| | | Bit No. 4 | 0 | |
| | | Bit No. 3 | 0 | |
| | | Bit No. 2 | 0 | |
| | | Bit No. 1 | 0 | |
| 3 | | Counter | 8 | |
| | | Bit No. 4 | 1 | |
| | | Bit No. 3 | 0 | |
| | | Bit No. 2 | 0 | |
| | | Bit No. 1 | 0 | |
| 2 | | Counter | 8 | 1 |
| | | Bit No. 4 | 1 | |
| | | Bit No. 3 | 0 | |
| | | Bit No. 2 | 0 | |
| 1 | | Counter | 8 | 0 |
| | | Bit No. 4 | 1 | |
| | | Bit No. 3 | 0 | |
| | | Bit No. 2 | 0 | |

14.3.39 SOFT SWITCH: #37

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|--|---------------------|------|------|------|------|------------|-------------------|------|------|------|------|-----------|-----------|---|---|---|---|-----------|-----------|---|---|---|---|-----------|-----------|---|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Reserved | Reserved | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Auto dial learning for V.34 modem | 0: Yes - skip V.34 handshaking with remote side 1: No - retry from V.8 handshake | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | RX start symbol rate for V.34 modem | See Bit No. 1 to 3 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | TX start symbol rate for V.34 modem | <table><tr><td>Symbol rate (sym/s)</td><td>3429</td><td>3200</td><td>3000</td><td>2800</td><td>2400</td></tr><tr><td>Max. speed (kbps)</td><td>33.6</td><td>31.2</td><td>28.8</td><td>26.4</td><td>21.6</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td></tr></table> | Symbol rate (sym/s) | 3429 | 3200 | 3000 | 2800 | 2400 | Max. speed (kbps) | 33.6 | 31.2 | 28.8 | 26.4 | 21.6 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| Symbol rate (sym/s) | | 3429 | 3200 | 3000 | 2800 | 2400 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. speed (kbps) | | 33.6 | 31.2 | 28.8 | 26.4 | 21.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | <table><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td></tr></table> | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 0 | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | <table><tr><td>Symbol rate</td><td colspan="5">Reserved</td></tr><tr><td>Max. speed</td><td colspan="5">Reserved</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td><td>1</td><td></td><td></td></tr><tr><td>Bit No. 2</td><td>0</td><td>1</td><td>1</td><td></td><td></td></tr><tr><td>Bit No. 1</td><td>1</td><td>0</td><td>1</td><td></td><td></td></tr></table> | Symbol rate | Reserved | | | | | Max. speed | Reserved | | | | | Bit No. 3 | 1 | 1 | 1 | | | Bit No. 2 | 0 | 1 | 1 | | | Bit No. 1 | 1 | 0 | 1 | | | 0 | | |
| | Symbol rate | Reserved | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Max. speed | Reserved | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Bit No. 3 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

14.3.40 SOFT SWITCH: #38

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | |
|--------------|---|--|-----------------|-----|---|----|---|----|-----------|---|---|---|---|-----------|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | |
| 8 | Reserved | Reserved | 0 | 6 | | | | | | | | | | | | | | | |
| 7 | Set/Reset V.34 transmit level deviation | 0: Reset 1: Set | 1 | | | | | | | | | | | | | | | | |
| 6 | V.34 flag number between ECM frame | | 1 | | | | | | | | | | | | | | | | |
| 5 | | <table><tr><td>Flags number</td><td>1</td><td>2</td><td>3</td><td>15</td></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Flags number | | 1 | 2 | 3 | 15 | Bit No. 6 | 0 | 0 | 1 | 1 | Bit No. 5 | 0 | 1 | 0 | 1 | 0 |
| Flags number | | 1 | 2 | | 3 | 15 | | | | | | | | | | | | | |
| Bit No. 6 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | |
| Bit No. 5 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | |
| 4 | Phase 2 guard tone power level (V.34) | 0: normal power level 1: -7 db of normal power level | 0 | | | | | | | | | | | | | | | | |
| 3 | Reserved | Reserved | 0 | 1 | | | | | | | | | | | | | | | |
| 2 | | | 0 | | | | | | | | | | | | | | | | |
| 1 | V.8 /V.34 capability | 0: No 1: Yes | 1 | | | | | | | | | | | | | | | | |

14.3.41 SOFT SWITCH: #39

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | |
|-----------------|---|--|-----------------|-----|-----|-----|-----|-----------|-----------|---|---|---|-----------|-----------|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | |
| 8 | Disable V.34 TX for V.34 modem | 1: Yes 0: No | 0 | 0 | | | | | | | | | | | | | | |
| 7 | Disable V.34 RX for V.34 modem | 1: Yes 0: No | 0 | | | | | | | | | | | | | | | |
| 6 | Flags number in FSK frame for V.34 modem | | 0 | | | | | | | | | | | | | | | |
| 5 | | <table><tr><td>Flags number</td><td>1</td><td>2</td><td>3</td><td>4</td></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Flags number | 1 | 2 | 3 | 4 | Bit No. 6 | 0 | 0 | 1 | 1 | Bit No. 5 | 0 | 1 | 0 | 1 | 0 |
| Flags number | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | |
| Bit No. 6 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | |
| Bit No. 5 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | |
| 4 | Manual TX mode for V.34 modem | 0: V.8 - start handshake from V.8 1: V.17 | 0 | 1 | | | | | | | | | | | | | | |
| 3 | Switch from V.17 to V.34 if DIS Bit 6 set after received DIS | 0: Yes - start V.8 handshaking. but only first time 1: No - Continue start with.17 | 0 | | | | | | | | | | | | | | | |
| 2 | Delay time in primary channel for V.34 transmit after CFR or MCF signal | <table><tr><td>Delay time (ms)</td><td>100</td><td>200</td><td>300</td><td>500</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Delay time (ms) | | 100 | 200 | 300 | 500 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 |
| Delay time (ms) | 100 | 200 | 300 | 500 | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | |
| 1 | | | 1 | | | | | | | | | | | | | | | |

14.3.42 SOFT SWITCH: #40

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|--|-----------------|-------|----------|------|----------|-------|-------|-------|-----------|-----------|-----------|---|---|---|-----------|-----------|---|-----------|---|-----------|-----------|---|---|---|---|-----------|-----------|---|---|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | V.17 RX start speed select receiving start speed for V.17 | <table><tr><td>Speed (bps)</td><td>V.17</td><td>V.17</td><td>V.17</td><td>V.17</td></tr><tr><td></td><td>14400</td><td>12000</td><td>9600</td><td>7200</td></tr><tr><td>Bit No. 8</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 7</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Speed (bps) | V.17 | V.17 | V.17 | V.17 | | 14400 | 12000 | 9600 | 7200 | Bit No. 8 | 0 | 0 | 0 | 0 | Bit No. 7 | 0 | 0 | 0 | 0 | Bit No. 6 | 0 | 0 | 1 | 1 | Bit No. 5 | 0 | 1 | 0 | 1 | 0 | 0 | | | | | | | | | | | | | |
| Speed (bps) | | V.17 | V.17 | V.17 | V.17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 14400 | 12000 | 9600 | 7200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 8 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 7 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | <table><tr><td>Speed (bps)</td><td>V.29</td><td>V.29</td><td>V.27</td><td>V.27 ter</td></tr><tr><td></td><td>9600</td><td>7200</td><td>4800</td><td>2400</td></tr><tr><td>Bit No. 8</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 7</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Speed (bps) | V.29 | V.29 | V.27 | V.27 ter | | 9600 | 7200 | 4800 | 2400 | Bit No. 8 | 0 | 0 | 0 | 0 | Bit No. 7 | 1 | 1 | 1 | 1 | Bit No. 6 | 0 | 0 | 1 | 1 | Bit No. 5 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | |
| Speed (bps) | | V.29 | V.29 | V.27 | V.27 ter | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 9600 | 7200 | 4800 | 2400 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 8 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 7 | | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | <table><tr><td>Speed (bps)</td><td>V.29</td><td>V.29</td><td>V.27</td><td>V.27 ter</td></tr><tr><td></td><td>9600</td><td>7200</td><td>4800</td><td>2400</td></tr><tr><td>Bit No. 8</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 7</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Speed (bps) | V.29 | V.29 | V.27 | V.27 ter | | 9600 | 7200 | 4800 | 2400 | Bit No. 8 | 0 | 0 | 0 | 0 | Bit No. 7 | 1 | 1 | 1 | 1 | Bit No. 6 | 0 | 0 | 1 | 1 | Bit No. 5 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | |
| Speed (bps) | | V.29 | V.29 | V.27 | V.27 ter | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9600 | 7200 | 4800 | 2400 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 8 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 7 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | <table><tr><td>Speed</td><td colspan="8">Reserved</td></tr><tr><td>Bit No. 8</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 7</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Speed | Reserved | | | | | | | | Bit No. 8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 7 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 6 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 5 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Speed | Reserved | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 7 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Reserved | Reserved | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | V.34 RX start speed prohibit V.34 mode when upper speed less | <table><tr><td>Speed (bps)</td><td>V.34</td><td>V.34</td><td>V.34</td><td>V.34</td></tr><tr><td></td><td>33600</td><td>31200</td><td>28800</td><td>26400</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Speed (bps) | V.34 | V.34 | V.34 | V.34 | | 33600 | 31200 | 28800 | 26400 | Bit No. 3 | 0 | 0 | 0 | 0 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 0 | | | | | | | | | | | | | | | | | | |
| Speed (bps) | | V.34 | V.34 | V.34 | V.34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 33600 | 31200 | 28800 | 26400 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | <table><tr><td>Speed (bps)</td><td>V.34</td><td>V.34</td><td>V.34</td><td>V.34</td></tr><tr><td></td><td>24000</td><td>21600</td><td>19200</td><td>16800</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Speed (bps) | V.34 | V.34 | V.34 | V.34 | | 24000 | 21600 | 19200 | 16800 | Bit No. 3 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | |
| Speed (bps) | | V.34 | V.34 | V.34 | V.34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 24000 | 21600 | 19200 | 16800 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | <table><tr><td>Speed (bps)</td><td>V.34</td><td>V.34</td><td>V.34</td><td>V.34</td></tr><tr><td></td><td>24000</td><td>21600</td><td>19200</td><td>16800</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Speed (bps) | V.34 | V.34 | V.34 | V.34 | | 24000 | 21600 | 19200 | 16800 | Bit No. 3 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | | |
| Speed (bps) | V.34 | V.34 | V.34 | V.34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 24000 | 21600 | 19200 | 16800 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

14.3.43 SOFT SWITCH: #41

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|--|-----------------|-------|----------|------|----------|-------|-------|-------|-----------|-----------|-----------|---|---|---|-----------|-----------|---|-----------|---|-----------|-----------|---|---|---|---|-----------|-----------|---|---|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | V.17 TX start speed select receiving start speed for V.17 | <table><tr><td>Speed (bps)</td><td>V.17</td><td>V.17</td><td>V.17</td><td>V.17</td></tr><tr><td></td><td>14400</td><td>12000</td><td>9600</td><td>7200</td></tr><tr><td>Bit No. 8</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 7</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Speed (bps) | V.17 | V.17 | V.17 | V.17 | | 14400 | 12000 | 9600 | 7200 | Bit No. 8 | 0 | 0 | 0 | 0 | Bit No. 7 | 0 | 0 | 0 | 0 | Bit No. 6 | 0 | 0 | 1 | 1 | Bit No. 5 | 0 | 1 | 0 | 1 | 0 | 0 | | | | | | | | | | | | | |
| Speed (bps) | | V.17 | V.17 | V.17 | V.17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 14400 | 12000 | 9600 | 7200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 8 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 7 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | <table><tr><td>Speed (bps)</td><td>V.29</td><td>V.29</td><td>V.27</td><td>V.27 ter</td></tr><tr><td></td><td>9600</td><td>7200</td><td>4800</td><td>2400</td></tr><tr><td>Bit No. 8</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 7</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Speed (bps) | V.29 | V.29 | V.27 | V.27 ter | | 9600 | 7200 | 4800 | 2400 | Bit No. 8 | 0 | 0 | 0 | 0 | Bit No. 7 | 1 | 1 | 1 | 1 | Bit No. 6 | 0 | 0 | 1 | 1 | Bit No. 5 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | |
| Speed (bps) | | V.29 | V.29 | V.27 | V.27 ter | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 9600 | 7200 | 4800 | 2400 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 8 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 7 | | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | <table><tr><td>Speed (bps)</td><td>V.29</td><td>V.29</td><td>V.27</td><td>V.27 ter</td></tr><tr><td></td><td>9600</td><td>7200</td><td>4800</td><td>2400</td></tr><tr><td>Bit No. 8</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 7</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Speed (bps) | V.29 | V.29 | V.27 | V.27 ter | | 9600 | 7200 | 4800 | 2400 | Bit No. 8 | 0 | 0 | 0 | 0 | Bit No. 7 | 1 | 1 | 1 | 1 | Bit No. 6 | 0 | 0 | 1 | 1 | Bit No. 5 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | |
| Speed (bps) | | V.29 | V.29 | V.27 | V.27 ter | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9600 | 7200 | 4800 | 2400 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 8 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 7 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | <table><tr><td>Speed</td><td colspan="8">Reserved</td></tr><tr><td>Bit No. 8</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 7</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Speed | Reserved | | | | | | | | Bit No. 8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 7 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 6 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 5 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Speed | Reserved | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 7 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Reserved | Reserved | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | V.34 TX start speed prohibit V.34 mode when upper speed less | <table><tr><td>Speed (bps)</td><td>V.34</td><td>V.34</td><td>V.34</td><td>V.34</td></tr><tr><td></td><td>33600</td><td>31200</td><td>28800</td><td>26400</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Speed (bps) | V.34 | V.34 | V.34 | V.34 | | 33600 | 31200 | 28800 | 26400 | Bit No. 3 | 0 | 0 | 0 | 0 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 0 | | | | | | | | | | | | | | | | | | |
| Speed (bps) | | V.34 | V.34 | V.34 | V.34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 33600 | 31200 | 28800 | 26400 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | <table><tr><td>Speed (bps)</td><td>V.34</td><td>V.34</td><td>V.34</td><td>V.34</td></tr><tr><td></td><td>24000</td><td>21600</td><td>19200</td><td>16800</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Speed (bps) | V.34 | V.34 | V.34 | V.34 | | 24000 | 21600 | 19200 | 16800 | Bit No. 3 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | |
| Speed (bps) | | V.34 | V.34 | V.34 | V.34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 24000 | 21600 | 19200 | 16800 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | <table><tr><td>Speed (bps)</td><td>V.34</td><td>V.34</td><td>V.34</td><td>V.34</td></tr><tr><td></td><td>24000</td><td>21600</td><td>19200</td><td>16800</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Speed (bps) | V.34 | V.34 | V.34 | V.34 | | 24000 | 21600 | 19200 | 16800 | Bit No. 3 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | | |
| Speed (bps) | V.34 | V.34 | V.34 | V.34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 24000 | 21600 | 19200 | 16800 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

14.3.44 SOFT SWITCH: #42

| Bit No. | Designation | Function | Initial Setting | |
|---------|-------------|----------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 0 |
| 7 | | | 0 | |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | | | 0 | 0 |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

14.3.45 SOFT SWITCH: #43

| Bit No. | Designation | Function | Initial Setting | |
|---------|-------------|----------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 0 |
| 7 | | | 0 | |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | | | 0 | 0 |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

14.3.46 SOFT SWITCH: #44

| Bit No. | Designation | Function | Initial Setting | |
|---------|-------------|----------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 0 |
| 7 | | | 0 | |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | | | 0 | 0 |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

14.3.47 SOFT SWITCH: #45

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|---|--|-----------------|-----|---|---|---|-----------|---|---|---|---|---|-----------|-----------|---|---|---|---|---|---|-----------|---|---|-----------|---|---|---|-----------|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Reserved | Reserved | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Call transfer | 0: Off | 0 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 1: On | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | No. of call transfer | <table><tr><td>Value</td><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Value | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Bit No. 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 3 |
| Value | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | <table><tr><td>Value</td><td colspan="5">Reserved</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Value | Reserved | | | | | Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 3 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | |
| Value | Reserved | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

14.3.48 SOFT SWITCH: #46

| Bit No. | Designation | Function | Initial Setting | |
|---------|---|--|-----------------|-----|
| | | | Bit | HEX |
| 8 | Daylight savings timer | 0: No 1: Yes | 1 | 8 |
| 7 | Reserved | Reserved | 0 | |
| 6 | | | 0 | |
| 5 | RX print mode | 0: RX one page then print one page. (PRINT RX) 1: Start to print after receiving all pages. (MEMORY RX) | 1 | A |
| 4 | | | 0 | |
| 3 | Default TX mode | 0: Memory TX 1: ADF TX | 0 | |
| 2 | Header for FAX TX | 0: Off 1: On - transmit header at top of each page | 1 | |
| 1 | Print model name on top of TX page If name not register | 0: No 1: Yes | 0 | |

- Bit 1: If machine name not registered, the model name will print at the top of each receiving page. The default is not to print. (base on custom ID)
- Bit 2: Some country such as U.S.A PTT regulation, must be send header at top of each page.

14.3.49 SOFT SWITCH: #47

| Bit No. | Designation | Function | Initial Setting | |
|---------|-------------|---|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 0 |
| 7 | | | 0 | |
| 6 | RX mode | 0: Auto RX mode | 0 | |
| | | 1: Manual RX mode | 0 | |
| 5 | Footer | 0: Off | 0 | 0 |
| | | 1: On - Print footer information at each of received page | 0 | |
| 4 | Reserved | Reserved | 0 | |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

- Bit 5: The footer shows machine number, receiving time, remote side TSI number, session and page number. The details show on the report specification.

14.3.50 SOFT SWITCH: #48

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | |
|-------------|------------------|---|-----------------|------------|------------|------------|----------|-----------|-----------|---|---|---|-----------|-----------|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | |
| 8 | Activity report | 0: No 1: Yes | 1 | A | | | | | | | | | | | | | | | |
| 7 | TX result report | <table><tr><td>Description</td><td>ON</td><td>ON (Error)</td><td>OFF</td><td>Reserved</td></tr><tr><td>Bit No. 7</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 6</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Description | | ON | ON (Error) | OFF | Reserved | Bit No. 7 | 0 | 0 | 1 | 1 | Bit No. 6 | 0 | 1 | 0 | 1 | 0 |
| Description | | | ON | | ON (Error) | OFF | Reserved | | | | | | | | | | | | |
| Bit No. 7 | 0 | 0 | 1 | | 1 | | | | | | | | | | | | | | |
| Bit No. 6 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | |
| 6 | 1 | | | | | | | | | | | | | | | | | | |
| 5 | RX result report | <table><tr><td>Description</td><td>ON</td><td>ON (Error)</td><td>OFF</td><td>Reserved</td></tr><tr><td>Bit No. 5</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 4</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Description | ON | ON (Error) | OFF | Reserved | Bit No. 5 | 0 | 0 | 1 | 1 | Bit No. 4 | 0 | 1 | 0 | 1 | 0 | 8 |
| Description | | | ON | ON (Error) | OFF | Reserved | | | | | | | | | | | | | |
| Bit No. 5 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | |
| Bit No. 4 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | |
| 4 | 1 | | | | | | | | | | | | | | | | | | |
| 3 | Reserved | Reserved | 0 | | | | | | | | | | | | | | | | |
| 2 | | | 0 | | | | | | | | | | | | | | | | |
| 1 | | | 0 | | | | | | | | | | | | | | | | |

14.3.51 SOFT SWITCH: #49

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|--|---|-----------------|-----|----|----|----|----|----|----|-----------|-----------|---|---|---|---|---|---|-----------|-----------|-----------|---|---|---|---|---|---|---|-----------|-----------|---|---|---|---|---|---|---|-----------|-----------|---|---|---|---|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Reserved | Reserved | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Re-dial method if Comm. Fail | 0: Re-dial again | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 1: Base on re-dial time interval | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | No. of rings | <table><tr><td>No. of rings</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | No. of rings | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Bit No. 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| No. of rings | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | <table><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td></tr></table> | Bit No. 3 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | <table><tr><td>No. of rings</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | No. of rings | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | | |
| No. of rings | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | <table><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

14.3.52 SOFT SWITCH: #50

| Bit No. | Designation | Function | Initial Setting | |
|---------|--|--------------------------------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Transmit or cancel after time out in "Memory TX" | 0: Cancel and print out report | 0 | 0 |
| | | 1: Transmission | 0 | |
| 7 | Reserved | Reserved | 0 | |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | | | 0 | 0 |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

- Bit 8: Can select cancel this job and print out report or start to send in case of time when memory full condition occurs.

14.3.53 SOFT SWITCH: #51

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | |
|-------------|---|---|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|----------|-----------|---|---|---|---|-----------|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | |
| 8 | Reserved | Reserved | 0 | 0 | | | | | | | | | | | | | | | |
| 7 | | | 0 | | | | | | | | | | | | | | | | |
| 6 | | | 0 | | | | | | | | | | | | | | | | |
| 5 | | | 0 | | | | | | | | | | | | | | | | |
| 4 | T30 monitor report selection | <table><tr><td>Description</td><td>Not to print</td><td>Print report for each transaction</td><td>Print report while reporting error</td><td>Not used</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Description | Not to print | Print report for each transaction | Print report while reporting error | Not used | Bit No. 4 | 0 | 0 | 1 | 1 | Bit No. 3 | 0 | 1 | 0 | 1 | 0 | 0 |
| Description | | Not to print | Print report for each transaction | Print report while reporting error | Not used | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | |
| 3 | | 0 | | | | | | | | | | | | | | | | | |
| 2 | Send unsent page mode for memory transmission | 0: From error page 1: From start page | 0 | | | | | | | | | | | | | | | | |
| 1 | Reserved | Reserved | 0 | | | | | | | | | | | | | | | | |

14.3.54 SOFT SWITCH: #52

| Bit No. | Designation | Function | Initial Setting | |
|---------|-------------|----------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 0 |
| 7 | | | 0 | |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | | | 0 | 0 |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

14.3.55 SOFT SWITCH: #53

| Bit No. | Designation | Function | Initial Setting | |
|---------|-------------|----------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 0 |
| 7 | | | 0 | |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | | | 0 | 0 |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

14.3.56 SOFT SWITCH: #54

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | |
|------------------|--|---|------------------|------|---------------|---------------|---------------|-----------|-----------|---|-----------|-----------|-----------|-----------|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | |
| 8 | Report Date/Time type | 0: Digits format 1: Alpha numeric format | 1 | A | | | | | | | | | | | | | | |
| 7 | Report Date/Time format | When bit No.8 is "1". <table><tr><td>Date/Time</td><td>2008. MAR. 25</td><td>MAR. 25. 2008</td><td>25. MAR. 2008</td></tr><tr><td>Bit No. 7</td><td>0</td><td>0</td><td>1</td></tr><tr><td>Bit No. 6</td><td>0</td><td>1</td><td>0</td></tr></table> | Date/Time | | 2008. MAR. 25 | MAR. 25. 2008 | 25. MAR. 2008 | Bit No. 7 | 0 | 0 | 1 | Bit No. 6 | 0 | 1 | 0 | 0 | | |
| Date/Time | | 2008. MAR. 25 | MAR. 25. 2008 | | 25. MAR. 2008 | | | | | | | | | | | | | |
| Bit No. 7 | | 0 | 0 | | 1 | | | | | | | | | | | | | |
| Bit No. 6 | | 0 | 1 | | 0 | | | | | | | | | | | | | |
| 6 | When bit No.8 is "0". <table><tr><td>Date/Time</td><td>2008. 11. 25</td><td>25. 11. 2008</td><td>11. 25. 2008</td></tr><tr><td>Bit No. 7</td><td>0</td><td>0</td><td>1</td></tr><tr><td>Bit No. 6</td><td>0</td><td>1</td><td>0</td></tr></table> | Date/Time | 2008. 11. 25 | | 25. 11. 2008 | 11. 25. 2008 | Bit No. 7 | 0 | 0 | 1 | Bit No. 6 | 0 | 1 | 0 | 1 | | | |
| Date/Time | 2008. 11. 25 | 25. 11. 2008 | 11. 25. 2008 | | | | | | | | | | | | | | | |
| Bit No. 7 | 0 | 0 | 1 | | | | | | | | | | | | | | | |
| Bit No. 6 | 0 | 1 | 0 | | | | | | | | | | | | | | | |
| 5 | Memory near full capacity for Fax and I-Fax scanning | <table><tr><td>Description (KB)</td><td>256</td><td>512</td><td>1024</td><td>1536</td></tr><tr><td>Bit No. 5</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 4</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Description (KB) | | 256 | 512 | 1024 | 1536 | Bit No. 5 | 0 | 0 | 1 | 1 | Bit No. 4 | 0 | 1 | 0 | 1 |
| Description (KB) | | 256 | 512 | 1024 | 1536 | | | | | | | | | | | | | |
| Bit No. 5 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | |
| Bit No. 4 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | |
| 4 | | | 1 | | | | | | | | | | | | | | | |
| 3 | Memory near full capacity for N-scan scanning | <table><tr><td>Description (KB)</td><td>512</td><td>1024</td><td>2512</td><td>5024</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Description (KB) | 512 | 1024 | 2512 | 5024 | Bit No. 3 | 0 | 0 | 1 | 1 | Bit No. 2 | 0 | 1 | 0 | 1 | 0 |
| Description (KB) | | 512 | 1024 | 2512 | 5024 | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | |
| 2 | | | 0 | | | | | | | | | | | | | | | |
| 1 | Reserved | Reserved | 0 | | | | | | | | | | | | | | | |

14.3.57 SOFT SWITCH: #55

| Bit No. | Designation | Function | Initial Setting | |
|---------|-------------|----------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 0 |
| 7 | | | 0 | |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | | | 0 | 0 |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

14.3.58 SOFT SWITCH: #56

| Bit No. | Designation | Function | Initial Setting | |
|---------|-------------|----------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 0 |
| 7 | | | 0 | |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | | | 0 | 0 |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

14.3.59 SOFT SWITCH: #57

| Bit No. | Designation | Function | Initial Setting | |
|---------|-------------|----------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 0 |
| 7 | | | 0 | |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | | | 0 | 0 |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

14.3.60 SOFT SWITCH: #58

| Bit No. | Designation | Function | Initial Setting | |
|---------|-------------------------------------|------------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Time out from PSK to FSK delay time | 0: 6 sec. | 0 | 0 |
| | | 1: 30 sec. | | |
| 7 | Reserved | Reserved | 0 | |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | | | 0 | 0 |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

- Bit 8: This is the delay time for PSK signal after sending MCF or PPR command. The timer depends on each country regulation.

14.3.61 SOFT SWITCH: #59 (Part 1)

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|--|--|-------------------------|-------------------------|--------|--|--------|--------|--------|--------|-----------|-----------|---|---|---|-----------|-----------|---|---|---|-----------|-----------|---|---|---|-----------|-----------|---|---|---|-----------|-----------|---|---|---|-----------|-----------|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Reserved | Reserved | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Time Between GMT (Greenwich Mean Time) | <table><tr><th rowspan="2">Time between mean time</th><th colspan="4">Greenwich mean time + T</th></tr><tr><th>+00:00</th><th>+00:30</th><th>+01:00</th><th>+01:30</th></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 5</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time between mean time | Greenwich mean time + T | | | | +00:00 | +00:30 | +01:00 | +01:30 | Bit No. 6 | 0 | 0 | 0 | 0 | Bit No. 5 | 0 | 0 | 0 | 0 | Bit No. 4 | 0 | 0 | 0 | 0 | Bit No. 3 | 0 | 0 | 0 | 0 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 1 | 2 |
| Time between mean time | | Greenwich mean time + T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | +00:00 | +00:30 | +01:00 | +01:30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | <table><tr><th rowspan="2">Time between mean time</th><th colspan="4">Greenwich mean time + T</th></tr><tr><th>+02:00</th><th>+02:30</th><th>+03:00</th><th>+03:30</th></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 5</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time between mean time | Greenwich mean time + T | | | | +02:00 | +02:30 | +03:00 | +03:30 | Bit No. 6 | 0 | 0 | 0 | 0 | Bit No. 5 | 0 | 0 | 0 | 0 | Bit No. 4 | 0 | 0 | 0 | 0 | Bit No. 3 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | |
| Time between mean time | | Greenwich mean time + T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | +02:00 | +02:30 | +03:00 | +03:30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | <table><tr><th rowspan="2">Time between mean time</th><th colspan="4">Greenwich mean time + T</th></tr><tr><th>+04:00</th><th>+04:30</th><th>+05:00</th><th>+05:30</th></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 5</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time between mean time | Greenwich mean time + T | | | | +04:00 | +04:30 | +05:00 | +05:30 | Bit No. 6 | 0 | 0 | 0 | 0 | Bit No. 5 | 0 | 0 | 0 | 0 | Bit No. 4 | 0 | 0 | 0 | 0 | Bit No. 3 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 1 | A |
| Time between mean time | | Greenwich mean time + T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | +04:00 | +04:30 | +05:00 | +05:30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | <table><tr><th rowspan="2">Time between mean time</th><th colspan="4">Greenwich mean time + T</th></tr><tr><th>+06:00</th><th>+06:30</th><th>+07:00</th><th>+07:30</th></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 5</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time between mean time | Greenwich mean time + T | | | | +06:00 | +06:30 | +07:00 | +07:30 | Bit No. 6 | 0 | 0 | 0 | 0 | Bit No. 5 | 0 | 0 | 0 | 0 | Bit No. 4 | 1 | 1 | 1 | 1 | Bit No. 3 | 0 | 0 | 0 | 0 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | |
| Time between mean time | Greenwich mean time + T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | +06:00 | +06:30 | +07:00 | +07:30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | <table><tr><th rowspan="2">Time between mean time</th><th colspan="4">Greenwich mean time + T</th></tr><tr><th>+08:00</th><th>+08:30</th><th>+09:00</th><th>+09:30</th></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 5</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time between mean time | Greenwich mean time + T | | | | +08:00 | +08:30 | +09:00 | +09:30 | Bit No. 6 | 0 | 0 | 0 | 0 | Bit No. 5 | 0 | 0 | 0 | 0 | Bit No. 4 | 1 | 1 | 1 | 1 | Bit No. 3 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 1 | | |
| Time between mean time | Greenwich mean time + T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | +08:00 | +08:30 | +09:00 | +09:30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | <table><tr><th rowspan="2">Time between mean time</th><th colspan="4">Greenwich mean time + T</th></tr><tr><th>+08:00</th><th>+08:30</th><th>+09:00</th><th>+09:30</th></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 5</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time between mean time | Greenwich mean time + T | | | | +08:00 | +08:30 | +09:00 | +09:30 | Bit No. 6 | 0 | 0 | 0 | 0 | Bit No. 5 | 1 | 1 | 1 | 1 | Bit No. 4 | 0 | 0 | 0 | 0 | Bit No. 3 | 0 | 0 | 0 | 0 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | | |
| Time between mean time | Greenwich mean time + T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | +08:00 | +08:30 | +09:00 | +09:30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

14.3.62 SOFT SWITCH: #59 (Part 2)

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|--|--|-------------------------|-------------------------|--------|--|--------|--------|--------|--------|-----------|-----------|---|---|---|-----------|-----------|---|---|---|-----------|-----------|---|---|---|-----------|-----------|---|---|---|-----------|-----------|---|---|---|-----------|-----------|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Time Between GMT (Greenwich Mean Time) | <table><tr><th rowspan="2">Time between mean time</th><th colspan="4">Greenwich mean time + T</th></tr><tr><th>+10:00</th><th>+10:30</th><th>+11:00</th><th>+11:30</th></tr><tr><td>Bit No. 6</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 5</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time between mean time | Greenwich mean time + T | | | | +10:00 | +10:30 | +11:00 | +11:30 | Bit No. 6 | 0 | 0 | 0 | 0 | Bit No. 5 | 1 | 1 | 1 | 1 | Bit No. 4 | 0 | 0 | 0 | 0 | Bit No. 3 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 1 | |
| Time between mean time | | Greenwich mean time + T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | +10:00 | +10:30 | +11:00 | +11:30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | <table><tr><th rowspan="2">Time between mean time</th><th colspan="4">Greenwich mean time + T</th></tr><tr><th>+12:00</th><th>-00:30</th><th>-01:00</th><th>-01:30</th></tr><tr><td>Bit No. 6</td><td>0</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>1</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 4</td><td>1</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time between mean time | Greenwich mean time + T | | | | +12:00 | -00:30 | -01:00 | -01:30 | Bit No. 6 | 0 | 1 | 1 | 1 | Bit No. 5 | 1 | 0 | 0 | 0 | Bit No. 4 | 1 | 0 | 0 | 0 | Bit No. 3 | 0 | 0 | 0 | 0 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | |
| Time between mean time | | Greenwich mean time + T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | +12:00 | -00:30 | -01:00 | -01:30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | | 0 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 1 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 1 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | <table><tr><th rowspan="2">Time between mean time</th><th colspan="4">Greenwich mean time + T</th></tr><tr><th>-02:00</th><th>-02:30</th><th>-03:00</th><th>-03:30</th></tr><tr><td>Bit No. 6</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time between mean time | Greenwich mean time + T | | | | -02:00 | -02:30 | -03:00 | -03:30 | Bit No. 6 | 1 | 1 | 1 | 1 | Bit No. 5 | 0 | 0 | 0 | 0 | Bit No. 4 | 0 | 0 | 0 | 0 | Bit No. 3 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 1 | A |
| Time between mean time | | Greenwich mean time + T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | -02:00 | -02:30 | -03:00 | -03:30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | <table><tr><th rowspan="2">Time between mean time</th><th colspan="4">Greenwich mean time + T</th></tr><tr><th>-04:00</th><th>-04:30</th><th>-05:00</th><th>-05:30</th></tr><tr><td>Bit No. 6</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time between mean time | Greenwich mean time + T | | | | -04:00 | -04:30 | -05:00 | -05:30 | Bit No. 6 | 1 | 1 | 1 | 1 | Bit No. 5 | 0 | 0 | 0 | 0 | Bit No. 4 | 0 | 0 | 0 | 0 | Bit No. 3 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | |
| Time between mean time | Greenwich mean time + T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | -04:00 | -04:30 | -05:00 | -05:30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | <table><tr><th rowspan="2">Time between mean time</th><th colspan="4">Greenwich mean time + T</th></tr><tr><th>-04:00</th><th>-04:30</th><th>-05:00</th><th>-05:30</th></tr><tr><td>Bit No. 6</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time between mean time | Greenwich mean time + T | | | | -04:00 | -04:30 | -05:00 | -05:30 | Bit No. 6 | 1 | 1 | 1 | 1 | Bit No. 5 | 0 | 0 | 0 | 0 | Bit No. 4 | 1 | 1 | 1 | 1 | Bit No. 3 | 0 | 0 | 0 | 0 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 1 | | |
| Time between mean time | Greenwich mean time + T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | -04:00 | -04:30 | -05:00 | -05:30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | <table><tr><th rowspan="2">Time between mean time</th><th colspan="4">Greenwich mean time + T</th></tr><tr><th>-06:00</th><th>-06:30</th><th>-07:00</th><th>-07:30</th></tr><tr><td>Bit No. 6</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time between mean time | Greenwich mean time + T | | | | -06:00 | -06:30 | -07:00 | -07:30 | Bit No. 6 | 1 | 1 | 1 | 1 | Bit No. 5 | 0 | 0 | 0 | 0 | Bit No. 4 | 1 | 1 | 1 | 1 | Bit No. 3 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | | |
| Time between mean time | Greenwich mean time + T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | -06:00 | -06:30 | -07:00 | -07:30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

14.3.63 SOFT SWITCH: #59 (Part 3)

| Bit No. | Designation | Function | Initial Setting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|--|--|-------------------------|-------------------------|--------|---|--------|----------|--------|--------|--------|-----------|---|---|---|---|-----------|---|-----------|---|---|-----------|---|---|---|-----------|-----------|---|---|---|---|-----------|-----------|---|---|---|-----------|---|---|-----------|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|
| | | | Bit | HEX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Time Between GMT (Greenwich Mean Time) | <table><tr><th rowspan="2">Time between mean time</th><th colspan="4">Greenwich mean time + T</th></tr><tr><th>-08:00</th><th>-08:30</th><th>-09:00</th><th>-09:30</th></tr><tr><td>Bit No. 6</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time between mean time | Greenwich mean time + T | | | | -08:00 | -08:30 | -09:00 | -09:30 | Bit No. 6 | 1 | 1 | 1 | 1 | Bit No. 5 | 1 | 1 | 1 | 1 | Bit No. 4 | 0 | 0 | 0 | 0 | Bit No. 3 | 0 | 0 | 0 | 0 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 1 | A | | | | | | | | | | | |
| Time between mean time | | Greenwich mean time + T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | -08:00 | -08:30 | -09:00 | -09:30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | <table><tr><th rowspan="2">Time between mean time</th><th colspan="4">Greenwich mean time + T</th></tr><tr><th>-10:00</th><th>-10:30</th><th>-11:00</th><th>-11:30</th></tr><tr><td>Bit No. 6</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time between mean time | Greenwich mean time + T | | | | -10:00 | -10:30 | -11:00 | -11:30 | Bit No. 6 | 1 | 1 | 1 | 1 | Bit No. 5 | 1 | 1 | 1 | 1 | Bit No. 4 | 0 | 0 | 0 | 0 | Bit No. 3 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | | | | | | | | | | | | |
| Time between mean time | | Greenwich mean time + T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | -10:00 | -10:30 | -11:00 | -11:30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | <table><tr><th rowspan="2">Time between mean time</th><th colspan="4">Greenwich mean time + T</th></tr><tr><th>-10:00</th><th>-10:30</th><th>-11:00</th><th>-11:30</th></tr><tr><td>Bit No. 6</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 4</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bit No. 3</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time between mean time | Greenwich mean time + T | | | | -10:00 | -10:30 | -11:00 | -11:30 | Bit No. 6 | 1 | 1 | 1 | 1 | Bit No. 5 | 1 | 1 | 1 | 1 | Bit No. 4 | 0 | 0 | 0 | 0 | Bit No. 3 | 1 | 1 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | Bit No. 1 | 0 | 1 | 0 | 1 | 1 | | | | | | | | | | | | |
| Time between mean time | | Greenwich mean time + T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | -10:00 | -10:30 | -11:00 | -11:30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | <table><tr><th rowspan="2">Time between mean time</th><th colspan="4">Greenwich mean time + T</th></tr><tr><th>-12:00</th><th colspan="4">Reserved</th></tr><tr><td>Bit No. 6</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time between mean time | Greenwich mean time + T | | | | -12:00 | Reserved | | | | Bit No. 6 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 5 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Time between mean time | Greenwich mean time + T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | -12:00 | Reserved | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | <table><tr><th rowspan="2">Time between mean time</th><th colspan="4">Greenwich mean time + T</th></tr><tr><th>-12:00</th><th colspan="4">Reserved</th></tr><tr><td>Bit No. 6</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time between mean time | Greenwich mean time + T | | | | -12:00 | Reserved | | | | Bit No. 6 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 5 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| Time between mean time | Greenwich mean time + T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | -12:00 | Reserved | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | <table><tr><th rowspan="2">Time between mean time</th><th colspan="4">Greenwich mean time + T</th></tr><tr><th>-12:00</th><th colspan="4">Reserved</th></tr><tr><td>Bit No. 6</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 5</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 4</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Bit No. 3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>Bit No. 2</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td></tr><tr><td>Bit No. 1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | Time between mean time | Greenwich mean time + T | | | | -12:00 | Reserved | | | | Bit No. 6 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 5 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Time between mean time | Greenwich mean time + T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | -12:00 | Reserved | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 6 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 5 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 4 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 3 | 0 | 0 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 2 | 0 | 0 | 1 | 1 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit No. 1 | 0 | 1 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

- Bit1-6: This value must be entered correctly, or E-mail headers will be wrong. A good reference web site may be found at <http://greenwichmeantime.com>. Available ranges are: 12 to -12, in half hour increments. The default setting was depend on each PTT.

14.3.64 SOFT SWITCH: #60

| Bit No. | Designation | Function | Initial Setting | |
|---------|---|---|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | |
| 7 | | | 0 | |
| 6 | Quick memory TX | 0: Ineffective 1: Effective | 0 | 0 |
| 5 | Reserved | Reserved | 0 | |
| 4 | | | 0 | |
| 3 | | | 0 | |
| 2 | Off hook alarm after communication | 0: Alarm 1: Not alarm after communication | 0 | 0 |
| 1 | Display destination selection within TX phase C | 0: Local Name or telephone number 1: Remote telephone number | 0 | |

14.3.65 SOFT SWITCH: #61

| Bit No. | Designation | Function | Initial Setting | |
|---------|------------------|--------------|------------------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 0 |
| 7 | | | 0 | |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | Max. No. of ring | No. of rings | 1 | 1 |
| | | Bit No. 4 | 0 0 0 0 0 0 0 0 | |
| | | Bit No. 3 | 0 0 0 0 0 1 1 1 | |
| | | Bit No. 2 | 0 0 1 1 0 0 1 1 | |
| | | Bit No. 1 | 0 1 0 1 0 1 0 1 | 1 |
| | | No. of rings | 9 10 11 12 13 14 15 16 | |
| | | Bit No. 4 | 1 1 1 1 1 1 1 1 | |
| | | Bit No. 3 | 0 0 0 0 1 1 1 1 | |
| | | Bit No. 2 | 0 0 1 1 0 0 1 1 | 1 |
| | | Bit No. 1 | 0 1 0 1 0 1 0 1 | |
| | | Bit No. 4 | 1 1 1 1 1 1 1 1 | 1 |
| | | Bit No. 3 | 0 0 0 0 1 1 1 1 | |
| | | Bit No. 2 | 0 0 1 1 0 0 1 1 | 1 |
| | | Bit No. 1 | 0 1 0 1 0 1 0 1 | |

14.3.66 SOFT SWITCH: #62

| Bit No. | Designation | Function | Initial Setting | |
|---------|-------------|----------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 0 |
| 7 | | | 0 | |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | | | 0 | 0 |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

14.3.67 SOFT SWITCH: #33

| Bit No. | Designation | Function | Initial Setting | |
|---------|--------------------------------|---|-----------------|-----|
| | | | Bit | HEX |
| 8 | "#" key definition in PBX mode | 1: "#" is external key, machine (PBX) default is internal 0: "#" is internal key, machine (PSTN) default is external | 1 | 8 |
| 7 | Reserved | Reserved | 0 | |
| 6 | | | 0 | |
| 5 | | | 0 | |
| 4 | | | 0 | 0 |
| 3 | | | 0 | |
| 2 | Fax TX image adjust | 0: Normal 1: Special handle | 0 | |
| 1 | TX result report with image | 0: Yes 1: No | 0 | |

- Bit 8: If this bit set to 1, the # key is use to access PSTN line after dial the pre-fix number
If this bit set to 0, the # key is use to access PBX line instead of PSTN line.
- Bit 1: This bit set to "1", the first page image will not append at the bottom of error report or OK report.
- Bit2: When this bit sets to "1", "Thin line" image with TEXT mode becomes more clear.

14.3.68 SOFT SWITCH: #64

| Bit No. | Designation | Function | Initial Setting | |
|---------|--|-----------------|-----------------|-----|
| | | | Bit | HEX |
| 8 | Reserved | Reserved | 0 | 0 |
| 7 | | | 0 | |
| 6 | Print RX error report in RX side if no any FAX signal detected | 0: No 1: Yes | 0 | |
| 5 | 10 PPS & 20 PPS selectable by user | 0: No 1: Yes | 0 | |
| 4 | Reserved | Reserved | 0 | 0 |
| 3 | | | 0 | |
| 2 | | | 0 | |
| 1 | | | 0 | |

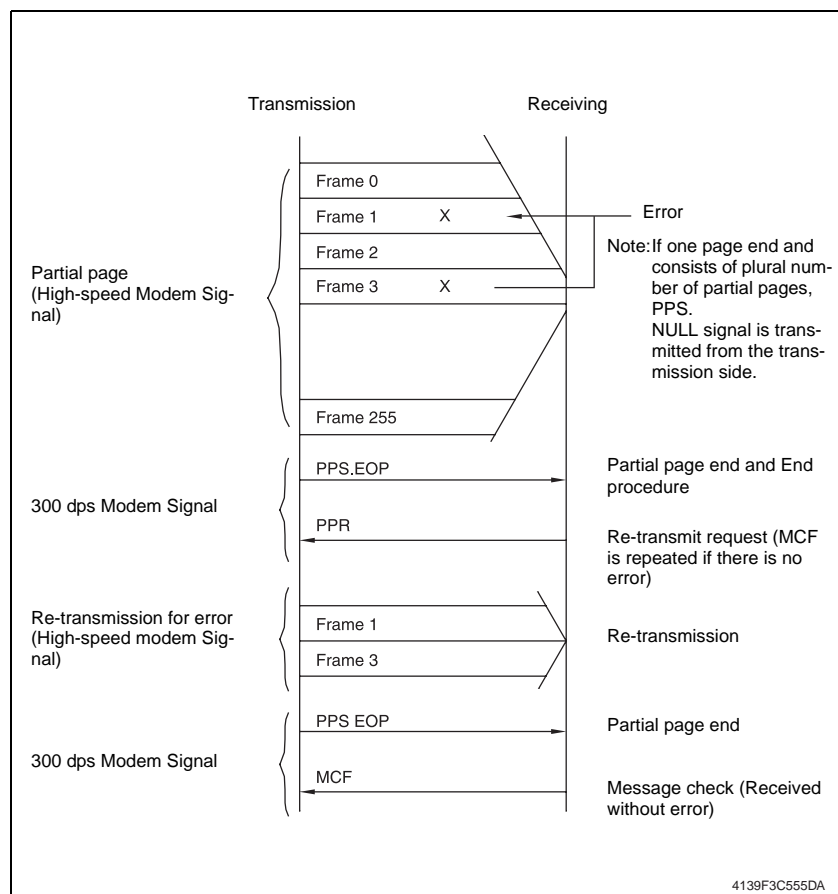
- Bit 6: If this bit set to 1, Machine do not print put RX error report if no detect any Fax signal from the other party.
- Bit 5: Can not open by user to change PPS if this bit set to "0".

15. Fax Protocols

15.1 G3 ECM (G3 Error Correction Mode)

- G3 ECM is the error correction system newly recommended by consultative committee of International telephone & telegraph of 1988.
- By G3 ECM, documents are divided into blocks (called partial page) for transmission. If any error takes place in any frame (one partial page consists of 256 frames) on a partial page, the receiving party generates the retransmit request with erroneous frame numbers.

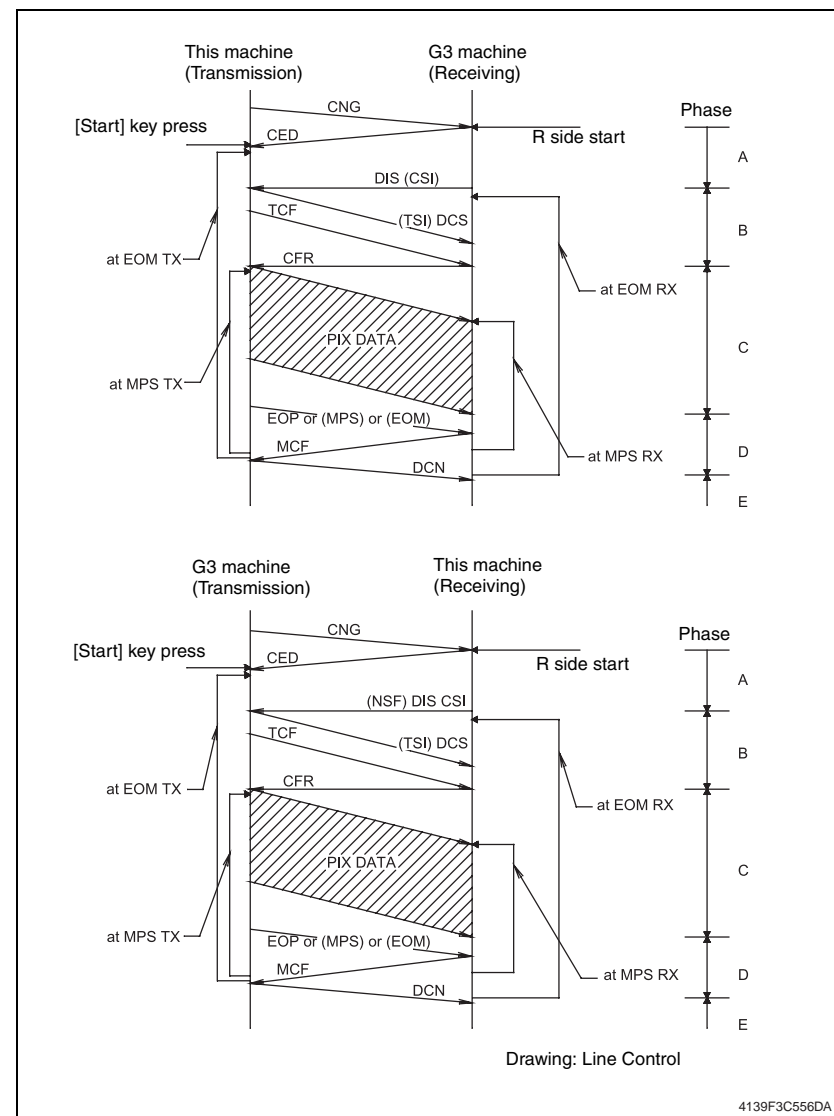
Here is an example where frame 1 and frame 3 are subjected to error:



15.2 Line control

15.2.1 Procedure of G3 mode communication

- Basic communications diagram of G3 mode.



15.3 Table of reference code

| Code | Function |
|---------|--|
| CFR | Confirmation to Receive. 1850 Hz or 1650 Hz 3 sec. |
| CIG | Calling Station Identification. |
| CRP | Command Repeat. |
| CSI | Called Subscriber Identification. |
| DCN | Disconnect. |
| DCS | Digital Identification Signal. |
| DIS | Digital Transmit Command. |
| DTC | Digital Transmit Command. |
| EOM | End of Message. 1,100 Hz. |
| EOP | End of Procedure. |
| FTT | Failure to Train. |
| MCF | Message Confirmation. 1,650 Hz or 1,850 Hz. |
| MPS | Multi-Page Signal. |
| NCS | Non-Standard Facilities Command. |
| NCF | Non-Standard Facilities. |
| NSS | Non-Standard Facilities Set-up. |
| PIN | Procedural Interrupt Negative. |
| PIP | Procedural Interrupt Positive. |
| PRI-EOM | Procedure Interrupt-End of Message (COM). |
| PRI-MPS | Procedure Interrupt-Multi page Signal (MPS). |
| PRI-EOP | Procedure Interrupt-End of Procedure (EOP). |
| RTN | Retrain Negative. |
| RTP | Retrain Positive. |
| TSI | Transmitting Station Identification. |

15.4 How to analyze the T30 protocol monitor

- DCS or DIS
- HEX Data as printed on page.
See P.134
- Example: V.17 Communication

| PROTOCOL MONITOR REPORT | | | | | | | | | | | |
|---|----------|----|-----------------------------|--|-------|------|-------------|--------|--------|--|--|
| NAME: ABC TEL:886 3 4733507 DATE: APR.23'04 12:20 | | | | | | | | | | | |
| SESSION | FUNCTION | NO | DESTINATION STATION | DATE | TIME | PAGE | DURATION | MODE | RESULT | | |
| 0001 | TX | 01 | ABC 22345678901234567890 | DEC.02 | 15:00 | 008 | 00h00min00s | ECM-12 | OK | | |
| TX | | RX | | DATA | | | | | | | |
| | | | | FF 13 83 00 46 88 00... <div style="margin-left: 100px;"> — FIF (Facsimile Information Field) — FCF (Facsimile Control Field) = 83: DCS, 80: DIS — Means Last Control Field. — Means address </div> | | | | | | | |

- FIF (Facsimile Information Field)

| HEX | 1 | | | | | | | | | | | | 2 | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|---|----|----|----|----|----|----|----|----|
| | 0 | | | 0 | | | 4 | | | 6 | | | 8 | | | 8 | | | 0 | | | 0 | | |
| Data Bit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bit No. | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 |
| Note | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |

- Hex-Binary Conversion List

| Hex | Binary | | | Hex | Binary | | | Hex | Binary | | | Hex | Binary | | |
|-----|--------|---|---|-----|--------|---|---|-----|--------|---|---|-----|--------|---|---|
| 0 | 0 | 0 | 0 | 4 | 0 | 1 | 0 | 8 | 1 | 0 | 0 | C | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 | 5 | 0 | 1 | 0 | 9 | 1 | 0 | 0 | D | 1 | 1 | 0 |
| 2 | 0 | 0 | 1 | 6 | 0 | 1 | 1 | A | 1 | 0 | 1 | E | 1 | 1 | 1 |
| 3 | 0 | 0 | 1 | 7 | 0 | 1 | 1 | B | 1 | 0 | 1 | F | 1 | 1 | 1 |

DIS (DTC) / DCS Bit Allocation Table of FIF (Facsimile Information Field)

| Bit No. | Designation | DIS/DTC | DCS |
|---------|---|--|---|
| 1 | "0"= Invalid "1"= Store-and-forward switching Internet fax simple mode | | |
| 2 | Set to "0" | | |
| 3 | "0"= Invalid "1"= Real-time Internet fax | | |
| 4 | Set to "0" | | |
| 5 | Set to "0" | | |
| 6 | "0"= Invalid "1"= V.8 capabilities | | Invalid |
| 7 | Flame size | "0" = 256 octets preferred "1"= 64 octets preferred | Invalid |
| 8 | Set to "0" | | |
| 9 | "0"= Invalid "1"= Ready to transmit a facsimile document (polling) | | Set to "0" |
| 10 | "0"= Invalid "1"= Receiver fax operation | | |
| 11 | Data signalling rate | Bit No. 14 13 12 11 | Data signalling rate |
| 12 | | 0 0 0 0 | V.27 <i>ter</i> fall-back mode |
| 13 | | 0 0 0 1 | Rec. V.29 |
| | | 0 0 1 0 | Rec. V.27 <i>ter</i> |
| | | 0 0 1 1 | Rec. V.27 <i>ter</i> and V.29 |
| | | 0 1 0 0 | Not used |
| | | 0 1 0 1 | Not used |
| | | 0 1 1 0 | Reserved |
| | | 0 1 1 1 | Reserved |
| | | 1 0 0 0 | Not used |
| | | 1 0 0 1 | Not used |
| | | 1 0 1 0 | Reserved |
| | | 1 0 1 1 | Rec. V.27 <i>ter</i> , V.29, V.33 and V.17 |
| | | 1 1 0 0 | Not used |
| | | 1 1 0 1 | Not used |
| | | 1 1 1 0 | Reserved |
| | | 1 1 1 1 | Reserved |
| | | Bit No. 14 13 12 11 | Data signalling rate |
| | | 0 0 0 0 | 2400 bit/s, rec. V.29 |
| | | 0 0 0 1 | 9600 bit/s, rec. V.29 |
| | | 0 0 1 0 | 4800 bit/s, rec. V.27 <i>ter</i> |
| | | 0 0 1 1 | 7200 bit/s, rec. V.29 |
| | | 0 1 0 0 | Invalid |
| | | 0 1 0 1 | Reserved |
| | | 0 1 1 0 | Invalid |
| | | 0 1 1 1 | Reserved |
| | | 1 0 0 0 | 14,400 bit/s, rec. V.17 |
| | | 1 0 0 1 | 9,600 bit/s, rec. V.17 |
| | | 1 0 1 0 | 12,000 bit/s, rec. V.17 |
| | | 1 0 1 1 | 7,200 bit/s, rec. V.17 |
| | | 1 1 0 0 | Reserved |
| | | 1 1 0 1 | Reserved |
| | | 1 1 1 0 | Reserved |
| | | 1 1 1 1 | Reserved |
| 15 | "0"= Invalid "1"= R8 × 7.7 lines/mm and/or 200 × 200 pels/25.4 mm | | |
| 16 | "0"= Invalid "1"= Two-dimensional coding capability | | "0"= Invalid "1"= Two-dimensional coding |

| Bit No. | Designation | DIS/DTC | DCS |
|---------|--|---------------------------|--|
| 17 | Recording width capabilities | Bit No. 18 17 | Data signalling rate |
| | | 0 0 | Scan line length 215 mm ± 1% |
| | | 0 1 | Scan line length 215 mm ± 1% and scan line length 255 mm ± 1% |
| | | 1 0 | Scan line length 215 mm ± 1% and scan line length 255 mm ± 1% and scan line length 303 mm ± 1% |
| | | 1 1 | Invalid |
| | | Bit No. 18 17 | Data signalling rate |
| | | 0 0 | Scan line length 215 mm ± 1% |
| | | 0 1 | Scan line length 255 mm ± 1% |
| | | 1 0 | Scan line length 303 mm ± 1% |
| | | 1 1 | Invalid |
| 19 | Recording length capability | Bit No. 20 19 | Recording length capability |
| | | 0 0 | A4 (297 mm) |
| | | 0 1 | A4 (297 mm) and B4 (364 mm) |
| | | 1 0 | Unlimited |
| | | 1 1 | Invalid |
| | | Bit No. 20 19 | Recording length capability |
| | | 0 0 | A4 (297 mm) |
| | | 0 1 | B4 (364 mm) |
| | | 1 0 | Unlimited |
| | | 1 1 | Invalid |
| 21 | Minimum scan line time capability at the receive | Bit No. 23 22 21 | Minimum scan line time |
| 22 | | 0 0 0 | 20 ms at 3.85 1/mm: T 7.7 = T 3.85 20 ms |
| | | 0 0 1 | 5 ms at 3.85 1/mm: T 7.7 = T 3.85 |
| | | 0 1 0 | 10 ms at 3.85 1/mm: T 7.7 = T 3.85 10 ms |
| | | 0 1 1 | 20 ms at 3.85 1/mm: T 7.7 = 1/2 T 3.85 |
| | | 1 0 0 | 40 ms at 3.85 1/mm: T 7.7 = T 3.85 40 ms |
| | | 1 0 1 | 40 ms at 3.85 1/mm: T 7.7 = 1/2 T 3.85 |
| | | 1 1 0 | 10 ms at 3.85 1/mm: T 7.7 = 1/2 T 3.85 |
| | | 1 1 1 | 0 ms at 3.85 1/mm: T 7.7 = T 3.85 |
| | | Bit No. 23 22 21 | Minimum scan line time |
| | | 0 0 0 | 20 ms |
| | | 0 0 1 | 5 ms |
| | | 0 1 0 | 10 ms |
| | | 1 0 0 | 40 ms |
| | | 1 1 1 | 0 ms |
| 24 | Extension field | "0"= Without "1"= With | |
| 25 | Reserved | | |
| 26 | "0"= Invalid "1"= Un-compressed mode | | |
| 27 | "0"= Invalid "1"= ECM | | |
| 28 | Set to "0" | | Frame size 0: 256 octets Frame size 1: 64 octets |
| 29 | Set to "0" | | |
| 30 | Set to "0" | | |

| Bit No. | Designation | DIS/DTC | DCS |
|---------|--|--|---|
| 31 | "0"= Invalid "1"= T.6 coding capability | | "0"= Invalid "1"= T.6 coding enabled |
| 32 | Extend field | "0"= Without "1"= With | |
| 33 | "0"= Invalid "1"= Field not valid capability | | |
| 34 | "0"= Invalid "1"= Multiple selective polling capability | | Set to "0" |
| 35 | "0"= Invalid "1"= Polling sub address transmission (DTC) by Polled Sub Address (DIS)/PSA | | Set to "0" |
| 36 | "0"= Invalid "1"= T.43 coding | | |
| 37 | "0"= Invalid "1"= Plane interleave | | |
| 38 | Set to "0" | | |
| 39 | Set to "0" | | |
| 40 | Extend field | "0"= Without "1"= With | |
| 41 | "0"= Invalid "1"= R8 x 15.4 lines/mm | | |
| 42 | "0"= Invalid "1"= 300 x 300 pels/25.4 mm | | |
| 43 | "0"= Invalid "1"= R16 x 15.4 lines/mm and/or 400 x 400 pels/25.4 mm | | |
| 44 | "0"= Invalid "1"= Inch based resolution preferred | | Resolution type selection "0"= metric based resolution "1"= inch based resolution |
| 45 | "0"= Invalid "1"= Metric based resolution preferred | | Do not care |
| 46 | Minimum scan line time capability for higher resolutions. | "0": T 15.4 = T 7.7 "1": T 15.4 = 1/2 T 7.7 | Do not care |
| 47 | "0"= Invalid "1"= Selective polling (DIS)/ Selective polling transmission (DTC) | | Set to "0" |
| 48 | Extend field | 0: Without 1: With | |
| 49 | "0"= Invalid "1"= Sub Addressing capability | | "0"= Invalid "1"= Sub Addressing transmission |
| 50 | "0"= Invalid "1"= Password/ Sender Identification capability (DIS)/ Password transmission (DTC) | | "0"= Invalid "1"= Sender Identification transmission |
| 51 | "0"= Invalid "1"= Ready to transmit a data file (polling) | | Set to "0" |
| 52 | Set to "0" | | |
| 53 | "0"= Invalid "1"= Binary File Transfer (BFT) | | |

| Bit No. | Designation | DIS/DTC | DCS |
|---------|---|--|--|
| 54 | "0"= Invalid "1"= Document Transfer Mode (DTM) | | |
| 55 | "0"= Invalid "1"= EDIFACT Transfer (EDI) | | |
| 56 | Extend field | 0: Without 1: With | |
| 57 | "0"= Invalid "1"= Basic Transfer Mode (BTM) | | |
| 58 | Set to "0" | | |
| 59 | "0"= Invalid "1"= Ready to transmit a character or mixed mode document (polling) | | Set to "0" |
| 60 | "0"= Invalid "1"= Character mode | | |
| 61 | Set to "0" | | |
| 62 | "0"= Invalid "1"= Mixed mode | | |
| 63 | Set to "0" | | |
| 64 | Extend field | "0"= Without "1"= With | |
| 65 | "0"= Invalid "1"= Processable mode 26 | | |
| 66 | "0"= Invalid "1"= Digital network capability | | |
| 67 | Duplex and half duplex capabilities | "0"= Half duplex operation only "1"= Duplex and half duplex operation | "0"= Half duplex operation only "1"= Duplex operation |
| 68 | "0"= Invalid "1"= JPEG coding | | |
| 69 | "0"= Invalid "1"= Full color mode | | |
| 70 | Set to "0" | | "0"= Invalid "1"= Preferred Huffman tables |
| 71 | "0"= Invalid "1"= 12 bit/pixel/element | | |
| 72 | Extend field | "0"= Without "1"= With | |
| 73 | "0"= Invalid "1"= No sampling (1:1:1) | | |
| 74 | "0"= Invalid "1"= Nonstandard radiation light | | |
| 75 | "0"= Invalid "1"= Nonstandard is mute range | | |
| 76 | "0"= Invalid "1"= North American Letter (215.9 mm x 279.4 mm) capacity | | "0"= Invalid "1"= North American Letter (215.9 mm x 279.4 mm) |

| Bit No. | Designation | DIS/DTC | DCS |
|---------|---|---------------------------|--|
| 77 | "0"= Invalid "1"= North American Legal (215.9 mm x 355.6 mm) capacity | | "0"= Invalid "1"= North American Legal (215.9 mm x 355.6 mm) |
| 78 | "0"= Invalid "1"= Single layer sequential encoding, basic capacity | | "0"= Invalid "1"= Single layer sequential encoding, basic |
| 79 | "0"= Invalid "1"= Single layer sequential encoding, optional L0 capacity | | |
| 80 | Extend field | "0"= Without "1"= With | |
| 81 | "0"= Invalid "1"= HKM key management capacity | | "0"= Invalid "1"= HKM key management selection |
| 82 | "0"= Invalid "1"= RSA key management capacity | | "0"= Invalid "1"= RSA key management selection |
| 83 | "0"= Invalid "1"= Override mode capacity | | "0"= Invalid "1"= Override mode function |
| 84 | "0"= Invalid "1"= HFX40 code capacity | | "0"= Invalid "1"= HFX40 code selection |
| 85 | "0"= Invalid "1"= Alternative code number 2 capacity | | "0"= Invalid "1"= Alternative code number 2 selection |
| 86 | "0"= Invalid "1"= Alternative code number 3 capacity | | "0"= Invalid "1"= Alternative code number 3 selection |
| 87 | "0"= Invalid "1"= HFX40-1 hashing capacity | | "0"= Invalid "1"= HFX40-1 hashing selection |
| 88 | Extend field | "0"= Without "1"= With | |
| 89 | "0"= Invalid "1"= Alternative hashing system number 2 capacity | | "0"= Invalid "1"= Alternative hashing system number 2 selection |
| 90 | "0"= Invalid "1"= Alternative hashing system number 3 capacity | | "0"= Invalid "1"= Alternative hashing system number 3 selection |
| 91 | Reserved | | |
| 92 | "0"= Invalid "1"= T.44 (Mixed raster content) mode | | |
| 93 | "0"= Invalid "1"= T.44 (Mixed raster content) mode | | |
| 94 | "0"= Invalid "1"= T.44 (Mixed raster content) mode | | |
| 95 | "0"= Invalid "1"= Page length maximum strip size for T.44 (Mixed raster content) | | |
| 96 | Extend field | "0"= Without "1"= With | |

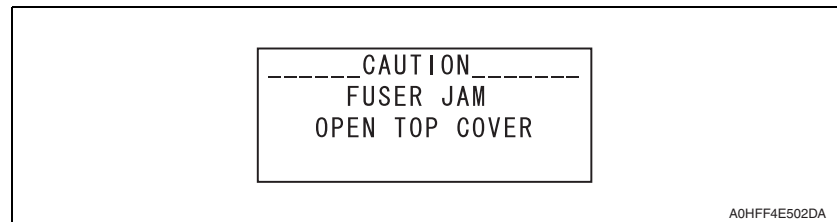
| Bit No. | Designation | DIS/DTC | DCS |
|---------|---|---------------------------|-----|
| 97 | "0"= Invalid "1"= Color/mono-color multi-value 300 pixels x 300 pixels or 400 pixels x 400 pixels / 25.4 mm | | |
| 98 | "0"= Invalid "1"= R4 x 3.85 lines/mm and/or 100 pixels x 100 pixels / 25.4 mm for color/mono-color multi-value | | |
| 99 | "0"= Invalid "1"= Single phase C BFT negotiation capacity | | |
| 100 | Set to "0" | | |
| 101 | Set to "0" | | |
| 102 | Set to "0" | | |
| 103 | Set to "0" | | |
| 104 | Extend field | "0"= Without "1"= With | |

TROUBLESHOOTING

16. Jam display

16.1 Misfeed display

- When a paper misfeed occurs, the printer shows the corresponding paper misfeed status by means of the Error indicator on the control panel or LCD display.



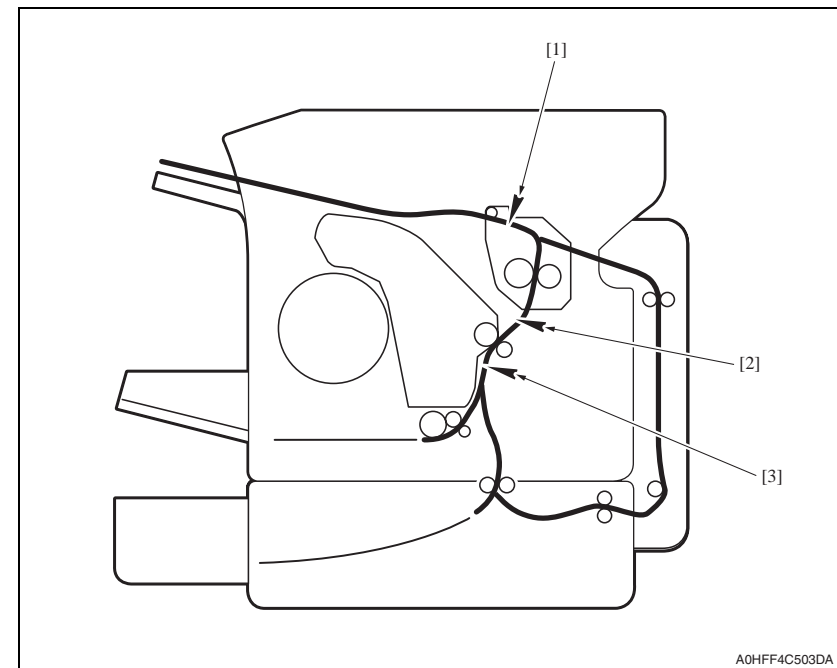
| Display | Misfeed Location | Misfeed processing location | Action |
|--|---------------------------------|-----------------------------|---|
| TRAY2 JAM OPEN TOP COVER | Tray2 media feed section | Tray2 | Lower Feeder Unit Service Manual P.15 |
| CHECK TRAY1 PAPER LOAD PAPER (XXX) (PRESS START KEY) | Tray1 media feed section | Top cover | P.179 |
| DUPLEX JAM OPEN TOP/DUPLEX | Switch back section | Duplex door | Duplex Option Service Manual P.15 |
| TRANSFER JAM OPEN TOP COVER | Transfer section | Top cover | P.179 |
| DUPLEX JAM OPEN DUPLEX COVER | Duplex option transport section | Duplex door | Duplex Option Service Manual P.16 |
| FUSER JAM OPEN TOP COVER | Fusing section | Top cover | P.180 |
| OUTPUT JAM OPEN TOP COVER | Exit section | Top cover | P.180 |
| ORIGINAL DOC. JAM OPEN DOC. FEED COVER (PRESS START KEY) | Document feeding section | ADF top cover | P.181 |
| | Document transport section | | P.181 |
| | Document exit section | | P.182 |

16.1.1 Misfeed display resetting procedure

- Open the relevant cover, clear the sheet of misfeed paper, and close the cover.

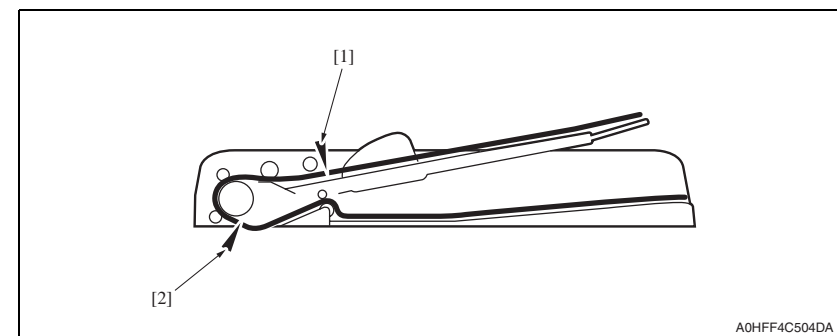
16.2 Sensor layout

- System equipped with a lower feeder unit and duplex option.



- [1] Exit sensor (PS4) [3] Registration sensor (PS2)
- [2] 2nd image transfer retraction position sensor (PS3)

- Auto document feeder unit



- [1] Media feed sensor (on REYB/1) [2] Registration sensor (on REYB/1)

16.3 Solution

16.3.1 Initial check items

- When a media misfeed occurs, first make checks of the following initial check items.

| Check item | Action |
|--|--|
| Does media meet product specifications? | <ul style="list-style-type: none"> Change media. |
| Is media curled, wavy, or damp. | <ul style="list-style-type: none"> Change media. Instruct user in correct media storage. |
| Is a foreign matter present along the media path, or is the media path deformed or worn? | <ul style="list-style-type: none"> Clean or change the media path. |
| Are rolls/rollers dirty, deformed, or worn? | <ul style="list-style-type: none"> Clean or change the defective roll/roller. |
| Are the edge guide and trailing edge stop at correct position to accommodate the media? | <ul style="list-style-type: none"> Set as necessary. |
| Are actuators found operational as checked for correct operation? | <ul style="list-style-type: none"> Correct or change the defective actuator. |

16.3.2 Misfeed at tray1 media feed section

A. Detection timing

| Type | Description |
|--|---|
| Detection of misfeed at media feed section | The leading edge of the media does not block the registration sensor (PS2) even after the lapse of a predetermined period of time after the tray1 media feed solenoid (SD1) has been energized. |

B. Action

| Relevant electrical parts | | | |
|--|--|------------------------------|---------------------------------|
| Registration sensor (PS2) Tray1 media feed solenoid (SD1) | | Printer control board (PRCB) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Initial check items | — | — |
| 2 | Check the PRCB connector for proper connection and correct as necessary. | — | — |
| 3 | PS2 sensor check. | PRCB PJ12-6 (ON) | C-3 |
| 4 | SD1 operation check. | PRCB PJ10-2 (REM) | C-10 |
| 5 | Change PRCB. | — | — |

16.3.3 Misfeed at 2nd transfer section

A. Detection timing

| Type | Description |
|---|--|
| Detection of misfeed at 2nd transfer section | <p>The media does not unblock the registration sensor (PS2) even after the lapse of a predetermined period of time after the registration roller solenoid (SD2) has been deenergized.</p> <p>The 2nd image transfer retraction position sensor (PS3) is not blocked by the media that has moved past the position, at which the sensor is blocked.</p> |
| Detection of media left in 2nd transfer section | <p>The registration sensor (PS2) is blocked when the power switch is turned ON, a cover is opened and closed, or a misfeed or malfunction is reset.</p> <p>The 2nd image transfer retraction position sensor (PS3) is blocked when the power switch is turned ON, a cover is opened and closed, or a misfeed or malfunction is reset.</p> |

B. Action

| Relevant electrical parts | | | |
|--|--|------------------------------|---------------------------------|
| Registration sensor (PS2) 2nd image transfer retraction position sensor (PS3) Registration roller solenoid (SD2) | | Printer control board (PRCB) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Initial check items | — | — |
| 2 | Check the PRCB connector for proper connection and correct as necessary. | — | — |
| 3 | PS2 sensor check. | PRCB PJ12-6 (ON) | C-3 |
| 4 | PS3 sensor check. | PRCB PJ12-3 (ON) | C-2 |
| 5 | SD2 operation check. | PRCB PJ10-4 (REM) | C-9 |
| 6 | Change PRCB. | — | — |

16.3.4 Misfeed at fusing section**A. Detection timing**

| Type | Description |
|---|--|
| Detection of misfeed at fusing section | The media does not block the exit sensor (PS4) even after the lapse of a predetermined period of time after the registration roller solenoid (SD2) has been energized. |
| | The exit sensor (PS4) is unblocked within a predetermined period of time after it has been blocked by the media. |
| | The transport motor, polygon motor, and rack motor are energized even after the lapse of a predetermined period of time after media information has been created. |
| Detection of media left in fusing section | The exit sensor (PS4) is blocked when the power switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset. |

B. Action

| Relevant electrical parts | | | |
|---|--|----------------------------|---------------------------------|
| Exit sensor (PS4) Registration roller solenoid (SD2) | | Print control board (PRCB) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Initial check items | — | — |
| 2 | Check the PRCB connector for proper connection and correct as necessary. | — | — |
| 3 | Make the sensor check of exit sensor (PS4) and, if any abnormal condition is found, replace the fuser unit with a new one. | — | — |
| 4 | SD2 operation check | PRCB PJ10-4 (REM) | C-9 |
| 5 | Change PRCB. | — | — |

16.3.5 Misfeed at exit section**A. Detection timing**

| Type | Description |
|---|--|
| Detection of misfeed at exit section | • The exit sensor (PS4) is not unblocked even after the lapse of a predetermined period of time after it has been blocked by the media. |
| Detection of paper left in exit section | • The exit sensor (PS4) is blocked when the power switch is turned ON, a cover is opened and closed, or a misfeed or malfunction is reset. |

B. Action

| Relevant electrical parts | | | |
|---------------------------|--|----------------------------|---------------------------------|
| Exit sensor (PS4) | | Print control board (PRCB) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Initial check items | — | — |
| 2 | Check the PRCB connector for proper connection and correct as necessary. | — | — |
| 3 | PS4 sensor check | — | B-5 to 6 |
| 4 | Change Fuser unit. | — | — |
| 5 | Change PRCB. | — | — |

16.3.6 Misfeed at the document feeding section**A. Detection timing**

| Type | Description |
|---|--|
| Detection of misfeed at the document feeding section | <ul style="list-style-type: none"> The media feed sensor (on REYB) is not unblocked even after the lapse of a predetermined period of time after the document feed motor (M100) has been energized. |
| Detection of media left at the document feeding section | <ul style="list-style-type: none"> The media feed sensor (on REYB) is unblocked when the power switch is turned ON, the cover is opened and closed, or a misfeed or malfunction is reset. |

B. Action

| Relevant electrical parts | |
|---|------------------|
| Document feed motor (M100) Media feed sensor (on REYB) | MFP board (MFPB) |

| Step | Action | WIRING DIAGRAM | |
|------|--|----------------|---------------------------------|
| | | Control signal | Location (electrical component) |
| 1 | Initial check items | — | — |
| 2 | Check the MFPB connector for proper connection and correct as necessary. | — | — |
| 3 | M100 operation check | MFPB P1-1 to 4 | J-6 |
| 4 | Media feed sensor (on REYB) sensor check | MFPB P4-4 (ON) | K to L-5 |
| 5 | Change MFPB. | — | — |

16.3.7 Document transport section**A. Detection timing**

| Type | Description |
|---|---|
| Detection of misfeed at the document transport section | <ul style="list-style-type: none"> The registration sensor (on REYB) is not blocked even after the lapse of a predetermined period of time after the media feed sensor (on REYB) has been unblocked. |
| Detection of media left at the document transport section | <ul style="list-style-type: none"> The media feed sensor (on REYB) is unblocked and the registration sensor (on REYB) is blocked when the power switch is turned ON, the cover is opened and closed, or a misfeed or malfunction is reset. |

B. Action

| Relevant electrical parts | |
|--|------------------|
| Document feed motor (M100) Media feed sensor (on REYB) Registration sensor (on REYB) | MFP board (MFPB) |

| Step | Action | WIRING DIAGRAM | |
|------|--|----------------|---------------------------------|
| | | Control signal | Location (electrical component) |
| 1 | Initial check items | — | — |
| 2 | Check the MFPB connector for proper connection and correct as necessary. | — | — |
| 3 | M100 operation check | MFPB P1-1 to 4 | J-6 |
| 4 | Media feed sensor (on REYB) sensor check | MFPB P4-4 (ON) | K to L-5 |
| 5 | Registration sensor (on REYB) sensor check | MFPB P4-1 (ON) | K to L-5 |
| 6 | Change MFPB. | — | — |

16.3.8 Misfeed at the document exit section

A. Detection timing

| Type | Description |
|--|---|
| Detection of misfeed at the document exit section | <ul style="list-style-type: none"> The registration sensor (on REYB) is not unblocked even after the lapse of a predetermined period of time after the media feed sensor (on REYB) has been unblocked. |
| Detection of media left at the document exit section | <ul style="list-style-type: none"> The registration sensor (on REYB) is blocked when the power switch is turned ON, the cover is opened and closed, or a misfeed or malfunction is reset. |

B. Action

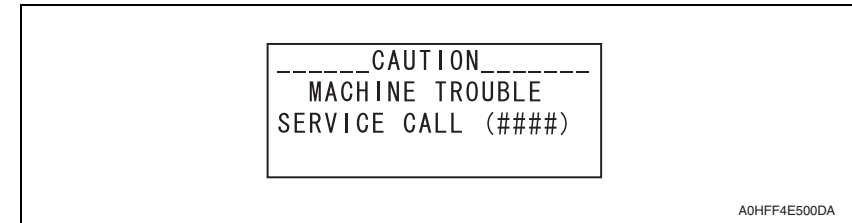
| Relevant electrical parts | |
|--|------------------|
| Document feed motor (M100) Media feed sensor (on REYB) Registration sensor (on REYB) | MFP board (MFPB) |

| Step | Action | WIRING DIAGRAM | |
|------|--|----------------|---------------------------------|
| | | Control signal | Location (electrical component) |
| 1 | Initial check items | — | — |
| 2 | Check the MFPB connector for proper connection and correct as necessary. | — | — |
| 3 | M100 operation check | MFPB P1-1 to 4 | J-6 |
| 4 | Media feed sensor (on REYB) sensor check | MFPB P4-4 (ON) | K to L-5 |
| 5 | Registration sensor (on REYB) sensor check | MFPB P4-1 (ON) | K to L-5 |
| 6 | Change MFPB. | — | — |

17. Malfunction code

17.1 Trouble codes (service call)

- The printer's CPU performs a self-diagnostics function that, on detecting a malfunction, gives the corresponding malfunction code and maintenance call mark on the control panel.



17.1.1 Trouble code list

- For the details of the malfunction codes of the options, see the service manual for the corresponding option.

| Display message | Misfeed location | Detection timing |
|-----------------|---|---|
| 0001 | Transport motor malfunction | <ul style="list-style-type: none"> The motor lock signal remains HIGH for a predetermined consecutive period of time while the transport motor remains energized. |
| 001B | Developing motor malfunction | <ul style="list-style-type: none"> The developing motor does not rotate evenly even after the lapse of a given period of time while it is being started. The motor lock signal remains HIGH for a given period of consecutive time while the developing motor is being rotated. |
| 004A | Duplex cooling fan motor malfunction | Duplex Option Service Manual P.18 |
| 004C | Ozone ventilation fan motor malfunction | <ul style="list-style-type: none"> The ozone ventilation fan motor does not rotate evenly even after the lapse of a given period of time while it is being started. The motor lock signal remains HIGH for a given period of consecutive time while the ozone ventilation fan motor is being rotated. |
| 004E | DC power supply fan motor malfunction | <ul style="list-style-type: none"> The DC power supply fan motor does not rotate evenly even after the lapse of a given period of time while it is being started. The motor lock signal remains HIGH for a given period of consecutive time while the DC power supply fan motor is being rotated. |
| 0092 | Transfer belt rotation failure | <ul style="list-style-type: none"> The belt positioning sensor does not detect the transfer belt position detection hole a second time even after the lapse of a predetermined period of time after it has detected one while the transfer belt is rotated. |

| Display message | Misfeed location | Detection timing |
|-----------------|--|--|
| 0094 | 2nd image transfer pressure / retraction failure | <ul style="list-style-type: none"> The 2nd image transfer retraction position sensor is not activated (retracted position) within a given period of time after the retraction sequence of the 2nd transfer roller has been started. The 2nd image transfer retraction position sensor is not deactivated (pressed position) within a given period of time after the pressure sequence of the 2nd transfer roller has been started. |
| 0300 | Polygon motor malfunction | <ul style="list-style-type: none"> The polygon motor does not rotate evenly even after the lapse of a given period of time after it has been started. The motor lock signal remains HIGH for a given period of consecutive time while the polygon motor is being rotated. |
| 0310 | Laser malfunction | <ul style="list-style-type: none"> The SOS signal is not detected within a given period of time after the output of the laser has been started. |
| 0500 | Fuser warm-up failure | <ul style="list-style-type: none"> The thermistor /1 does not detect the specified temperature and the warm-up cycle is not completed even after the lapse of a given period of time after the cycle has been started. |
| 0502 | Thermistor open-circuit failure | <ul style="list-style-type: none"> The temperature detected by the thermistor does not reach a predetermined level even after the lapse of a given period time after the warm-up cycle has been started. |
| 0503 | Thermistor resistance failure | <ul style="list-style-type: none"> The difference between the temperature detected by thermistor/1 and that detected by thermistor/2 exceeds a predetermined value. |
| 0510 | Abnormally low fuser temperature | <ul style="list-style-type: none"> The temperature detected by the thermistor /1 remains lower than the specified value for a given period of time or longer. |
| 0520 | Abnormally high fuser temperature | <ul style="list-style-type: none"> The temperature detected by the thermistor /1 remains higher than the specified value for a given period of time or longer. The heater lamp remains ON for a given period of time or longer. |
| 0F51 | Waste toner full sensor malfunction | <ul style="list-style-type: none"> It is determined that the LED and photo receiver are faulty through a check made when a new imaging cartridge is detected. |
| 13C0 | Print control board malfunction | <ul style="list-style-type: none"> A communication error occurs in print control board (PRCB). |
| 13DD | Backup data error | <ul style="list-style-type: none"> The printer determines that EEPROM is yet to be mounted when the main power switch is turned ON. |
| 13F0 | Engine control failure | <ul style="list-style-type: none"> An undefined malfunction occurs in the engine section (PRCB, etc.). |
| 3C00 | Trouble related to security | <ul style="list-style-type: none"> Contact the responsible people of KONICA MINOLTA when not returning in power switch OFF/ON. |
| 3C10 | | |
| 3C40 | | |
| 13E2 | Engine flash ROM write error | <ul style="list-style-type: none"> Flash ROM writing is found faulty during a check. |

| Display message | Misfeed location | Detection timing |
|-----------------|---|---|
| CF01 | BB error | <ul style="list-style-type: none"> Contact the responsible people of KONICA MINOLTA before taking some countermeasures. |
| 0045 | Exit tray cooling fan motor malfunction | <ul style="list-style-type: none"> The exit tray cooling fan motor does not rotate evenly even after the lapse of a given period of time while it is being started. The fan motor lock signal remains HIGH for a given period of consecutive time while the exit tray cooling fan motor is being rotated. |
| 0650 | Scanner home sensor abnormalities | <ul style="list-style-type: none"> A low motor lock signal is not detected even after the lapse of a predetermined period of time after the polygon motor has been started. The motor lock signal remains HIGH for a predetermined consecutive period of time while the polygon motor remains energized. |
| 14A3 | IR lamp malfunction | <ul style="list-style-type: none"> The intensity of the light emitted from the exposure lamp of the scanner falls short of the specified value. |
| 1038 | Engine connect error | <ul style="list-style-type: none"> Printer control board (PRCB) to MFP board (MFPB) connection failure. The copier determines that there is an error if the print control board (PRCB) fails to send an acknowledgement signal to the MFP board (MFPB) for a given period of time or more. An error command signal is transmitted from the MFP board (MFPB) to printer control board (PRCB). An error status signal is transmitted from the printer control board (PRCB) to MFP board (MFPB). |
| 3FFF | Flash ROM write error | <ul style="list-style-type: none"> The copier determines that there is an error if writing to the flash ROM fails during upgrading of the firmware. When the power switch is turned ON, the error indicator lights up steadily and a corresponding message appears on the display. If this error message appears, no operations can then be performed. It is not possible to upgrade the firmware from a PC connected through USB connection, either. |

17.2 Resetting a malfunction

- To reset a malfunction, turn the power switch OFF and then ON again.

17.3 Solution

17.3.1 0001: Transport motor malfunction

| Relevant electrical parts | | | |
|---------------------------|--|--|---------------------------------|
| Transport motor (M1) | | Print control board (PRCB) DC power supply (DCPU) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Check the M1 connector for proper connection and correct as necessary. | — | — |
| 2 | Check M1 for proper drive coupling and correct as necessary. | — | — |
| 3 | Check the PRCB connector for proper connection and correct as necessary. | — | — |
| 4 | M1 operation check | PRCB PJ8-1 to 6 | C-2 |
| 5 | Change M1. | — | — |
| 6 | Change PRCB. | — | — |
| 7 | Change DCPU. | — | — |

17.3.2 001B: Developing motor malfunction

| Relevant electrical parts | | | |
|---------------------------------------|--|--|---------------------------------|
| Developing motor (M3) Driving unit | | Print control board (PRCB) DC power supply (DCPU) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Check the developing motor connector for proper connection and correct as necessary. | — | — |
| 2 | Check the PRCB connector for proper connection and correct as necessary. | — | — |
| 3 | M3 operation check | PRCB PJ5-1 to 4 | C-12 |
| 4 | Change M3. | — | — |
| 5 | Change PRCB. | — | — |
| 6 | Change DCPU. | — | — |

17.3.3 004C: Ozone ventilation fan motor malfunction

| Relevant electrical parts | | | |
|-----------------------------------|---|---|---------------------------------|
| Ozone ventilation fan motor (FM2) | | Print control board (PRCB) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Check the FM2 connector for proper connection and correct as necessary. | — | — |
| 2 | Check the fan for possible overload and correct as necessary. | — | — |
| 3 | FM2 operation check | PRCB PJ16-1 (REM) PRCB PJ16-3 (LOCK) | C-4 |
| 4 | Change FM2. | — | — |
| 5 | Change PRCB. | — | — |

17.3.4 004E: DC power supply fan motor malfunction

| Relevant electrical parts | | | |
|---------------------------------|---|-----------------------------------|---------------------------------|
| DC power supply fan motor (FM1) | | Print control board (PRCB) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Check the FM1 connector for proper connection and correct as necessary. | — | — |
| 2 | Check the fan for possible overload and correct as necessary. | — | — |
| 3 | FM1 operation check | HV CN2-1 (REM) HV CN2-3 (LOCK) | B-4 to 5 |
| 4 | Change FM1. | — | — |
| 5 | Change PRCB. | — | — |

17.3.5 0092: Transfer belt rotation failure

| Relevant electrical parts | | | |
|--|--|----------------------------|---------------------------------|
| Belt positioning sensor (PS6) Imaging cartridge | | Print control board (PRCB) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Check the PRCB connector for proper connection and correct as necessary. | — | — |
| 2 | PS6 sensor check | — | — |
| 3 | Change imaging cartridge. | — | — |
| 4 | Change PRCB. | — | — |

17.3.6 0094: 2nd image transfer pressure/retraction failure

| Relevant electrical parts | | | |
|--|--|----------------------------|---------------------------------|
| 2nd image transfer retraction position sensor (PS3) 2nd image transfer pressure/retraction solenoid (SD4) Transport motor (M1) | | Print control board (PRCB) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Check the M1 connector for proper connection and correct as necessary. | — | — |
| 2 | Check the SD4 connector for proper connection and correct as necessary. | — | — |
| 3 | Check M1 for proper drive coupling and correct as necessary. | — | — |
| 4 | Check SD4 for proper drive coupling and correct as necessary. | — | — |
| 5 | Check the PRCB connector for proper connection and correct as necessary. | — | — |
| 6 | PS3 sensor check | PRCB PJ12-3 (ON) | C-2 |
| 7 | SD4 operation check | PRCB PJ10-6 (REM) | C-9 |
| 8 | M1 operation check | PRCB PJ8-1 to 6 | C-2 |
| 9 | Change M1. | — | — |
| 10 | Change SD4. | — | — |
| 11 | Change PRCB. | — | — |

17.3.7 0300: Polygon motor malfunction

| Relevant electrical parts | | | |
|---------------------------|---|----------------------------|---------------------------------|
| PH unit | | Print control board (PRCB) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Check the cable and connector for proper connection and correct as necessary. | — | — |
| 2 | Change PH unit. | — | — |
| 3 | Change PRCB. | — | — |

17.3.8 0310: Laser malfunction

| Relevant electrical parts | | | |
|---------------------------|---|----------------------------|---------------------------------|
| PH unit | | Print control board (PRCB) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Check the cable and connector for proper connection and correct as necessary. | — | — |
| 2 | Change PH unit. | — | — |
| 3 | Change PRCB. | — | — |

**17.3.9 0500: Fuser warm-up failure
0503: Thermistor resistance failure**

| Relevant electrical parts | | | |
|---------------------------|--|--|---------------------------------|
| Fuser unit | | Printer control board (PRCB) DC power supply (DCPU) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (Electrical component) |
| 1 | Change fuser unit. | — | — |
| 2 | 1. Main switch is turned ON. 2. Open the top cover. 3. Press the following ten keys in this order. 2 → 6 → 2 → 3 → 7. 4. Main switch is turned OFF/ON. | — | — |
| 3 | Change PRCB. | — | — |
| 4 | Change DCPU. | — | — |

17.3.10 0502: Thermistor open-circuit failure
0510: Abnormally low fuser temperature
0520: Abnormally high fuser temperature

| Relevant electrical parts | | | |
|---------------------------|--|--|---------------------------------|
| Fuser unit | | Printer control board (PRCB) DC power supply (DCPU) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (Electrical component) |
| 1 | Check the fuser unit for correct installation (whether it is secured in position). | — | — |
| 2 | Check the fuser unit, DCPU, and PRCB for proper connection and correct as necessary. | — | — |
| 3 | Change fuser unit. | — | — |
| 4 | Change PRCB. | — | — |
| 5 | Change DCPU. | — | — |

17.3.11 0F51: Waste toner full sensor malfunction

| Relevant electrical parts | | | |
|--|--|----------------------------|---------------------------------|
| Waste toner full sensor (PS7) Imaging cartridge | | Print control board (PRCB) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Check the PRCB connector for proper connection and correct as necessary. | — | — |
| 2 | PS7 sensor check | — | — |
| 3 | Change imaging cartridge. | — | — |
| 4 | Change PRCB. | — | — |

17.3.12 13C0: Print control board malfunction

| Relevant electrical parts | | | |
|----------------------------|-----------------------|----------------|---------------------------------|
| Print control board (PRCB) | | | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Reboot the main body. | — | — |
| 2 | Change PRCB. | — | — |

17.3.13 13DD: Backup data error

| Relevant electrical parts | | | |
|----------------------------|---|------------------|---------------------------------|
| Print control board (PRCB) | | MFP board (MFPB) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Check the cable and connector for proper connection and correct as necessary. | — | — |
| 2 | Change PRCB. | — | — |
| 3 | Change MFPB. | — | — |

17.3.14 13F0: Engine control failure

| Relevant electrical parts | | | |
|----------------------------|---|------------------|---------------------------------|
| Print control board (PRCB) | | MFP board (MFPB) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Check the cable and connector for proper connection and correct as necessary. | — | — |
| 2 | Change PRCB. | — | — |
| 3 | Change MFPB. | — | — |

17.3.15 13E2: Engine flash ROM write error

| Relevant electrical parts | | | |
|----------------------------|---|------------------|---------------------------------|
| Print control board (PRCB) | | MFP board (MFPB) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Check the cable and connector for proper connection and correct as necessary. | — | — |
| 2 | Change PRCB. | — | — |
| 3 | Change MFPB. | — | — |

17.3.16 0045: Exit tray cooling fan motor malfunction

| Relevant electrical parts | | | |
|-----------------------------------|---|---|---------------------------------|
| Exit tray cooling fan motor (FM4) | | MFP board (MFPB) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Check the FM4 connector for proper connection and correct as necessary. | — | — |
| 2 | Check the fan for possible overload and correct as necessary. | — | — |
| 3 | FM4 operation check | PRCB PJ24-4 (REM) PRCB PJ24-6 (LOCK) | C-13 |
| 4 | Change FM4. | — | — |
| 5 | Change MFPB. | — | — |

17.3.17 0650: Scanner home sensor abnormalities

| Relevant electrical parts | | | |
|---------------------------|--|--|---------------------------------|
| Scanner motor (M101) | | Print control board (PRCB) DC power supply (DCPU) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Check the M101 connector for proper connection and correct as necessary. | — | — |
| 2 | Check M101 for proper drive coupling and correct as necessary. | — | — |
| 3 | Check the PRCB connector for proper connection and correct as necessary. | — | — |
| 4 | M101 operation check. | MFPB P2-1 to 4 | 1680MF: J-12 1690MF: J-6 |
| 5 | Change PRCB. | — | — |
| 6 | Change DCPU. | — | — |

17.3.18 14A3: IR lamp malfunction

| Relevant electrical parts | | | |
|---------------------------|--|------------------|---------------------------------|
| Scanner unit | | MFP board (MFPB) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Check the exposure lamp for lighting condition when the power switch is turned ON and, if any faulty symptom is evident, correct the Scanner Unit. | — | — |
| 2 | Check the MFPB connector for proper connection and correct as necessary. | — | — |
| 3 | Change scanner unit. | — | — |
| 4 | Change MFPB. | — | — |

17.3.19 1038: Engine connect error

| Relevant electrical parts | | | |
|----------------------------|---|------------------|---------------------------------|
| Print control board (PRCB) | | MFP board (MFPB) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Turn OFF and ON the power switch. | — | — |
| 2 | Check the PRCB connector for proper connection and correct as necessary. | — | — |
| 3 | Check the MFPB connector for proper connection and correct as necessary. | — | — |
| 4 | Check for proper connection between PRCB and MFPB and correct as necessary. | — | — |
| 5 | Change MFPB. | — | — |
| 6 | Change PRCB. | — | — |

17.3.20 3FFF: Flash ROM write error

| Relevant electrical parts | | | |
|----------------------------|---|------------------|---------------------------------|
| Print control board (PRCB) | | MFP board (MFPB) | |
| Step | Action | WIRING DIAGRAM | |
| | | Control signal | Location (electrical component) |
| 1 | Check the cable and connector for proper connection and correct as necessary. | — | — |
| 2 | Identify the specific firmware that is responsible for the error. | — | — |
| 3 | Rewrite the firmware. | — | — |
| 4 | Unplug parameter chip from PRCB and then plug it back in. | — | — |
| 5 | Change PRCB. | — | — |
| 6 | Change MFPB. | — | — |

18. Power supply errors**18.1 Machine is not energized at all (DCPU operation check)**

| Relevant electrical parts | | | | |
|--|--|--------------------------------------|--------|---|
| Power switch Printer control board (PRCB) | | DC power supply (DCPU) | | |
| Step | Check Item | Location (Electrical component) | Result | Action |
| 1 | Is the power source voltage being applied to CN6 on DCPU? | 1680MF: J to K-8 1690MF: J to K-1 | NO | Check wiring from power outlet to SW1 to CN1-N. |
| 2 | Are fuses (F1 and F2) on DCPU conducting? | — | NO | Change DCPU. |
| 3 | Are DC24 V and DC5 V being applied to PJ17 on the printer control board? | E-4 to 5 | NO | Change DCPU. |
| | | | YES | Change PRCB. |

18.2 Control panel indicators do not light

| Relevant electrical parts | | | | |
|-----------------------------------|---|--|--------|---|
| MFP board (MFPB) Control panel | | DC power supply (DCPU) | | |
| Step | Check Item | Location (Electrical component) | Result | Action |
| 1 | Is the power source voltage being applied to CN6 on DCPU? | J-6 | NO | Check wiring from power outlet to SW1 to CN1-N. |
| 2 | Are fuses (F1 and F2) on DCPU conducting? | — | NO | Change DCPU. |
| 3 | Is PJ1 on PRCB properly connected? | 1680MF: F to G-10 1690MF: F to G-3 to 4 | NO | Reconnect. |
| | Is P10 on MFPB properly connected? | 1680MF: H-10 1690MF: H-3 to 4 | | |
| | Is P7 on MFPB properly connected? | 1680MF: I-10 to 11 1690MF: I-3 to 4 | | |
| 4 | Is CN701 on control panel properly connected? | 1680MF: J to K-10 to 11 1690MF: J to K-3 to 4 | NO | Reconnect. |
| | | | YES | Change control panel. Change MFPB. |

19. Image quality problems

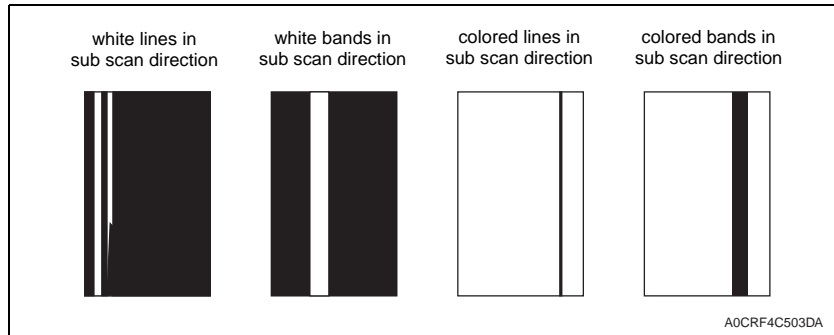
19.1 Print system

NOTE

- Typical faulty image samples shown in the following are all printed with A4S setting.

19.1.1 White lines/bands, colored lines/bands in sub scan direction

A. Typical faulty images

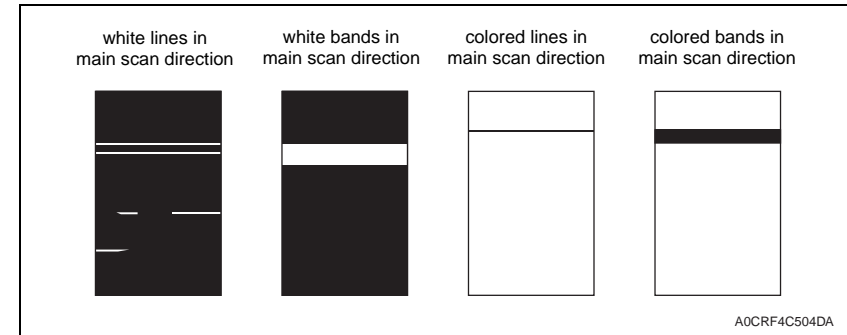


B. Troubleshooting procedure

| Step | Section | Check item | Result | Action |
|------|---------------------|---|--------|--|
| 1 | Imaging cartridge | Are there scratches or lines evident on the photo conductor surface? | YES | Replace the imaging cartridge. |
| 2 | | Is the outside dirty? | YES | Clean. |
| 3 | | Is the connector or contact terminal of the imaging cartridge connected properly? | NO | Clean the contact terminal. |
| 4 | | Is the transfer belt dirty with fingerprints or oil? | YES | Clean. |
| 5 | | Is the transfer belt dirty or scratched? | YES | Wipe the surface clean of dirt with a soft cloth. Replace the scratched transfer belt with a new imaging cartridge. |
| 6 | PH unit | Is the connector or contact terminal of the PH unit connected properly? | NO | Clean the contact terminal or reconnect the connector. |
| 7 | | Is the window surface dirty? | YES | Clean. |
| 8 | 2nd transfer roller | Is the 2nd transfer roller dirty or scratched? | YES | Replace the 2nd transfer roller. |
| 9 | Media path | Is there a foreign object in the media path? | YES | Remove the foreign object. |
| 10 | Fuser unit | Is the fusing entrance guide plate dirty or scratched? | YES | Clean. Replace the fuser unit. |
| 11 | | Have steps 1 to 10 eliminated the problem? | NO | Replace the toner cartridge. → Replace the PH unit. |

19.1.2 White lines/bands, colored lines/bands in main scan direction

A. Typical faulty images

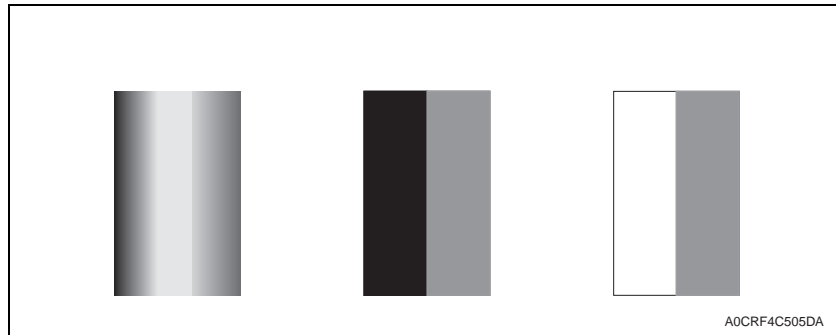


B. Troubleshooting procedure

| Step | Section | Check item | Result | Action |
|------|---------------------|---|--------|--|
| 1 | Imaging cartridge | Are there scratches or lines evident on the photo conductor surface? | YES | Replace the imaging cartridge. |
| 2 | | Is the outside dirty? | YES | Clean. |
| 3 | | Is the connector or contact terminal of the imaging cartridge connected properly? | NO | Clean the contact terminal. |
| 4 | | Is the transfer belt dirty or scratched? | YES | Wipe the surface clean of dirt with a soft cloth. Replace the scratched transfer belt with a new imaging cartridge. |
| 5 | Toner cartridge | Is the developing bias contact terminal in good contact? | NO | Clean the contact terminal or check the terminal position. |
| 6 | PH unit | Is the connector or contact terminal of the PH unit connected properly? | NO | Clean the contact terminal or reconnect the connector. |
| 7 | 2nd transfer roller | Is the 2nd transfer roller dirty or scratched? | YES | Replace the 2nd transfer roller. |
| 8 | Media path | Is there a foreign object in the media path? | YES | Remove the foreign object. |
| 9 | Fuser unit | Is the fusing entrance guide plate dirty or scratched? | YES | Clean. |
| 10 | | Have steps 1 to 9 eliminated the problem? | NO | Replace the DC power supply. |

19.1.3 Uneven density in sub scan direction

A. Typical faulty images

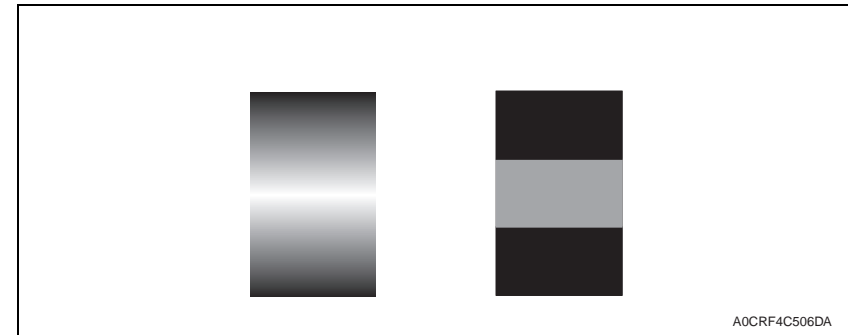


B. Troubleshooting procedure

| Step | Section | Check item | Result | Action |
|------|---------------------|--|--------|--|
| 1 | Imaging cartridge | Are there scratches or lines evident on the photo conductor surface? | YES | Replace the imaging cartridge. |
| 2 | | Is the outside dirty? | YES | Clean. |
| 3 | | Is the transfer belt dirty or scratched? | YES | Wipe the surface clean of dirt with a soft cloth. Replace the scratched transfer belt with a new imaging cartridge. |
| 4 | | Is the terminal dirty? | YES | Clean. |
| 5 | PH unit | Is the window surface dirty? | YES | Clean. |
| 6 | 2nd transfer roller | Is the 2nd transfer roller dirty or scratched? | YES | Replace the 2nd transfer roller. |
| 7 | | Have steps 1 to 6 eliminated the problem? | NO | Replace the toner cartridge. → Replace the PH Unit. → Replace high voltage unit. |

19.1.4 Uneven density in main scan direction

A. Typical faulty images

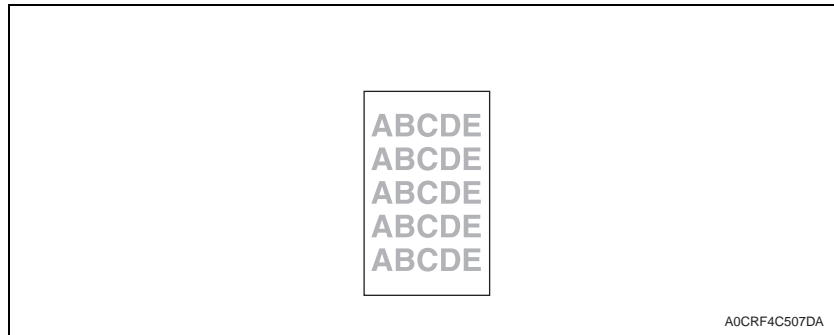


B. Troubleshooting procedure

| Step | Section | Check item | Result | Action |
|------|---------------------|--|--------|--|
| 1 | Imaging cartridge | Are there scratches or lines evident on the photo conductor surface? | YES | Replace the imaging cartridge. |
| 2 | | Is the outside dirty? | YES | Clean. |
| 3 | | Is the transfer belt dirty with fingerprints or oil? | YES | Clean. |
| 4 | | Is the transfer belt dirty or scratched? | YES | Wipe the surface clean of dirt with a soft cloth. Replace the scratched transfer belt with a new imaging cartridge. |
| 5 | | Is the terminal dirty? | YES | Clean. |
| 6 | 2nd transfer roller | Is the 2nd transfer roller dirty or scratched? | YES | Replace the 2nd transfer roller. |
| 7 | | Have steps 1 to 6 eliminated the problem? | NO | Replace the toner cartridge. → Replace high voltage unit. |

19.1.5 Low image density

A. Typical faulty images

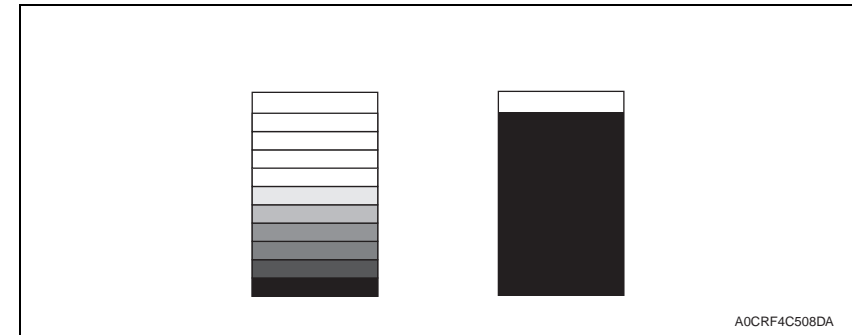


B. Troubleshooting procedure

| Step | Section | Check item | Result | Action |
|------|---------------------|---|--------|---|
| 1 | Imaging cartridge | Is the outside dirty? | YES | Clean. |
| 2 | | Is the contact dirty? | YES | Clean. |
| 3 | PH unit | Is the window surface dirty? | YES | Clean. |
| 4 | 2nd transfer roller | Is the contact dirty? | YES | Clean. |
| 5 | Media | Is the media damp? | YES | Replace the media with new media that has just been unwrapped. |
| 6 | IDC sensor board | Is the sensor dirty? | YES | Clean. |
| 7 | | Have steps 1 to 6 eliminated the problem? | NO | Replace the toner cartridge. → Replace the Imaging cartridge. → Replace the 2nd transfer roller. → Replace the PH unit. → Replace the IDC sensor board. → Replace the printer control board. → Replace the high voltage unit. |

19.1.6 Gradation reproduction failure

A. Typical faulty images

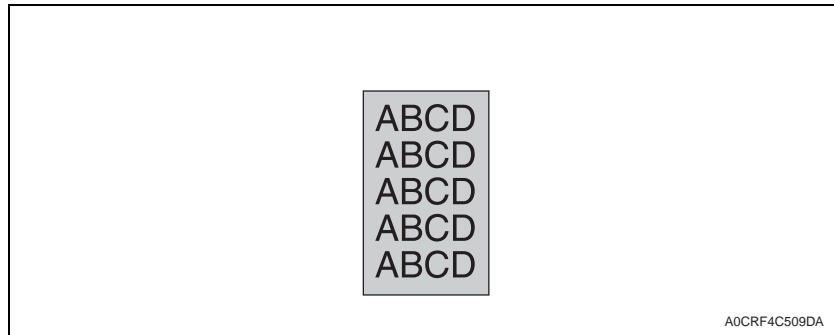


B. Troubleshooting procedure

| Step | Section | Check item | Result | Action |
|------|-------------------|---|--------|---|
| 1 | Imaging cartridge | Is the outside dirty? | YES | Clean. |
| 2 | PH unit | Is the window surface dirty? | YES | Clean. |
| 3 | IDC sensor board | Is the sensor dirty? | YES | Clean. |
| 4 | | Have steps 1 to 3 eliminated the problem? | NO | Replace the toner cartridge. → Replace the PH unit. → Replace the IDC sensor board. → Replace the high voltage unit. |

19.1.7 Foggy background

A. Typical faulty images

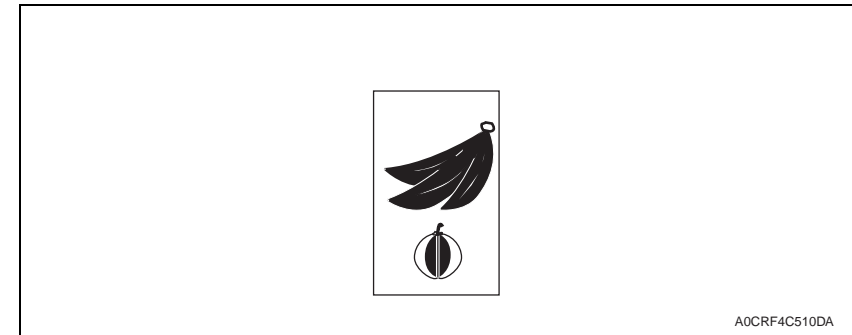


B. Troubleshooting procedure

| Step | Section | Check item | Result | Action |
|------|-------------------|---|--------|---|
| 1 | Imaging cartridge | Are there scratches or lines evident on the photo conductor surface? | YES | Replace the imaging cartridge. |
| 2 | | Is the outside dirty? | YES | Clean. |
| 3 | | Is the contact terminal of the imaging cartridge connected properly? | NO | Clean the contact terminal. |
| 4 | Toner cartridge | Is the developing bias contact terminal in good contact? | NO | Clean the contact terminal or check the terminal position. |
| 5 | PH unit | Is the connector or contact terminal of the PH unit connected properly? | NO | Clean the contact terminal or reconnect the connector. |
| 6 | | Is the window surface dirty? | YES | Clean. |
| 7 | IDC sensor board | Is the sensor dirty? | YES | Clean. |
| 8 | | Have steps 1 to 7 eliminated the problem? | NO | Replace the toner cartridge. → Replace the PH unit. → Replace the IDC sensor board. |

19.1.8 Poor color reproduction

A. Typical faulty images

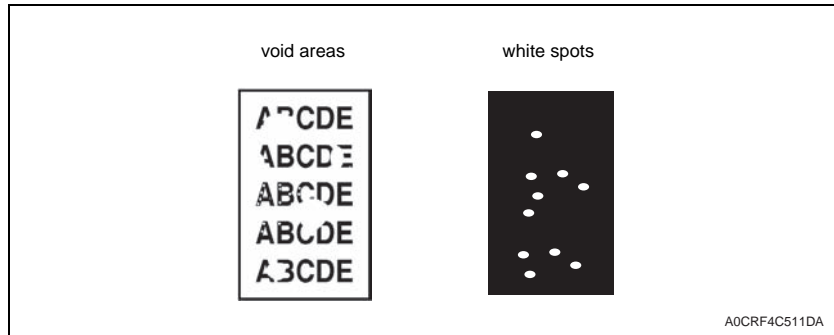


B. Troubleshooting procedure

| Step | Section | Check item | Result | Action |
|------|-------------------|---|--------|---|
| 1 | Media | Is the media damp? | YES | Replace the media with new media that has just been unwrapped. |
| 2 | imaging cartridge | Is the terminal dirty? | YES | Clean. |
| 3 | IDC sensor board | Is the sensor dirty? | YES | Clean. |
| 4 | | Have steps 1 to 3 eliminated the problem? | NO | Replace the imaging cartridge. → Replace the IDC sensor board. → Replace the printer control board. → Replace the high voltage unit. |

19.1.9 Void areas, white spots

A. Typical faulty images

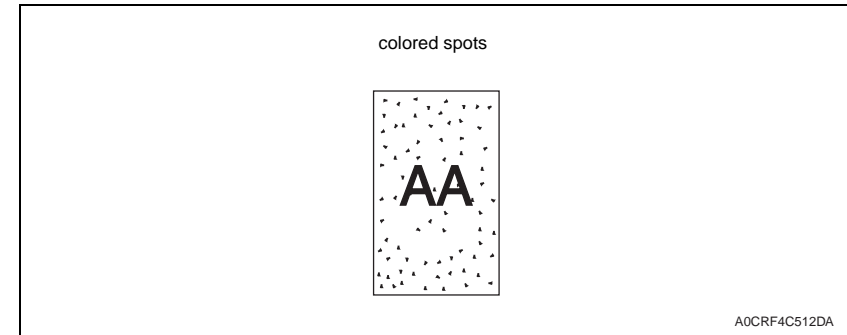


B. Troubleshooting procedure

| Step | Section | Check item | Result | Action |
|------|---------------------|--|--------|--|
| 1 | Imaging cartridge | Are there scratches or lines evident on the photo conductor surface? | YES | Replace the imaging cartridge. |
| 2 | | Is the outside dirty? | YES | Clean. |
| 3 | | Is the transfer belt dirty with fingerprints or oil? | YES | Clean. |
| 4 | | Is the transfer belt dirty or scratched? | YES | Wipe the surface clean of dirt with a soft cloth. Replace the scratched transfer belt with a new imaging cartridge. |
| 5 | | Is the ground terminal connected properly? | NO | Correct. |
| 6 | 2nd transfer roller | Is the 2nd transfer roller dirty or scratched? | YES | Replace the 2nd transfer roller. |
| 7 | Media path | Is there a foreign object in the media path? | YES | Remove the foreign object. |
| 8 | | Is the fusing entrance guide plate dirty or scratched? | YES | Clean or replace. |
| 9 | | Have steps 1 to 8 eliminated the problem? | NO | Replace the toner cartridge. |

19.1.10 Colored spots

A. Typical faulty images

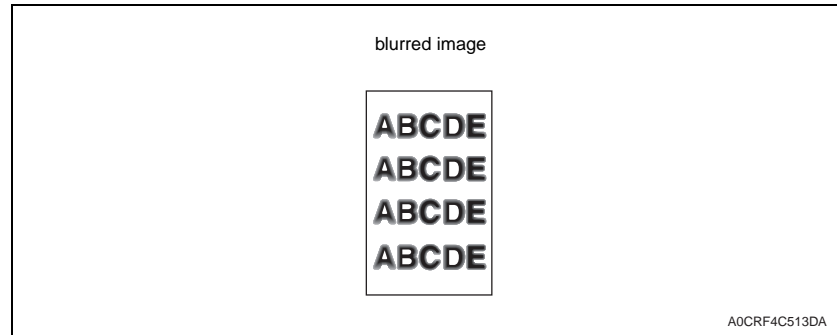


B. Troubleshooting procedure

| Step | Section | Check item | Result | Action |
|------|---------------------|--|--------|--|
| 1 | Imaging cartridge | Are the spots in a single color? | NO | Replace the imaging cartridge. |
| 2 | | Are there scratches or lines evident on the photo conductor surface? | YES | Replace the imaging cartridge. |
| 3 | | Is the Transfer Belt dirty with fingerprints or oil? | YES | Clean. |
| 4 | | Is the transfer belt dirty or scratched? | YES | Wipe the surface clean of dirt with a soft cloth. Replace the scratched transfer belt with a new imaging cartridge. |
| 5 | 2nd transfer roller | Is the 2nd transfer roller dirty or scratched? | YES | Replace the 2nd transfer roller. |
| 6 | Media path | Is there a foreign object in the media path? | YES | Remove the foreign object. |
| 7 | Fuser unit | Is the fusing roller dirty or scratched? | YES | Replace the fuser unit. |
| 8 | | Have steps 1 to 7 eliminated the problem? | NO | Replace the toner cartridge. |

19.1.11 Blurred image

A. Typical faulty images

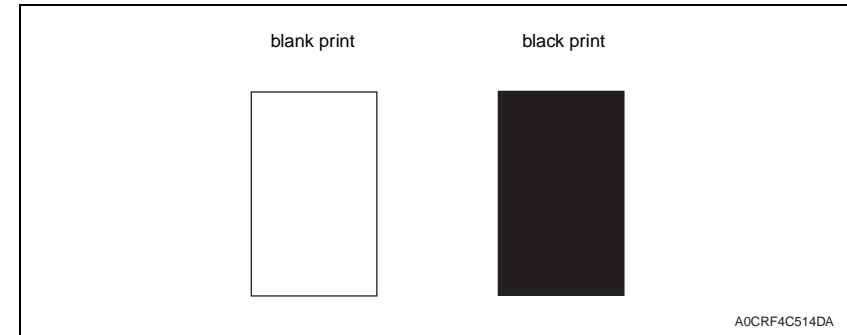


B. Troubleshooting procedure

| Step | Section | Check item | Result | Action |
|------|-------------------|---|--------|--|
| 1 | PH unit | Is the window surface dirty? | YES | Clean. |
| 2 | Imaging cartridge | Is the outside dirty? | YES | Clean. |
| 3 | | Have steps 1 to 2 eliminated the problem? | NO | Replace the imaging cartridge. → Replace the PH unit. |

19.1.12 Blank copy, black copy

A. Typical faulty images

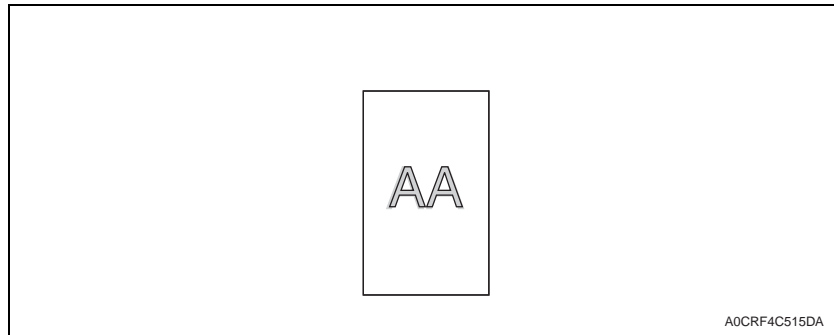


B. Troubleshooting procedure

| Step | Section | Check item | Result | Action |
|------|-------------------|---|--------|--|
| 1 | Image check | Does a blank print occur? | YES | Check the PH unit connector for proper connection. |
| 2 | Imaging cartridge | Is the gear of the imaging cartridge drive mechanism installed properly? | NO | Check or correct the drive transmitting section or replace the imaging cartridge. |
| 3 | | Is the charge corona voltage contact or photo conductor ground contact of the imaging cartridge connected properly? | NO | Check, clean, or correct the contact. |
| 4 | High voltage unit | Is the connector connected properly? | NO | Reconnect. |
| 5 | | Have steps 1 to 4 eliminated the problem? | NO | Replace the high voltage unit. → Replace the printer control board. → Replace the PH unit. |

19.1.13 Incorrect color image registration

A. Typical faulty images

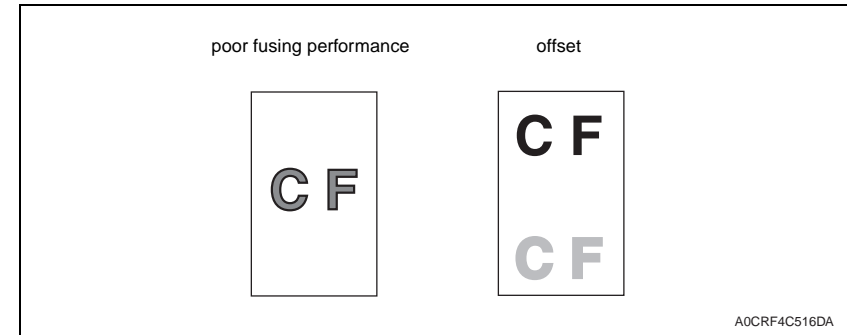


B. Troubleshooting procedure

| Step | Section | Check item | Result | Action |
|------|---------------------|---|--------|--|
| 1 | Imaging cartridge | Is the transfer belt dirty with fingerprints or foreign matter? | YES | Clean. |
| 2 | | Is the transfer belt dirty or scratched? | YES | Wipe the surface clean of dirt with a soft cloth. Replace the scratched transfer belt with a new imaging cartridge. |
| 3 | | Is the photo conductor scratched? | YES | Replace the imaging cartridge. |
| 4 | | Is the drive coupling to the machine dirty? | YES | Clean. |
| 5 | 2nd transfer roller | Is the 2nd transfer roller dirty or scratched? | YES | Replace the 2nd transfer roller. |
| 6 | | Have steps 1 to 5 eliminated the problem? | NO | Replace the PH unit. → Replace the printer control board. |

19.1.14 Poor fusing performance, offset

A. Typical faulty images

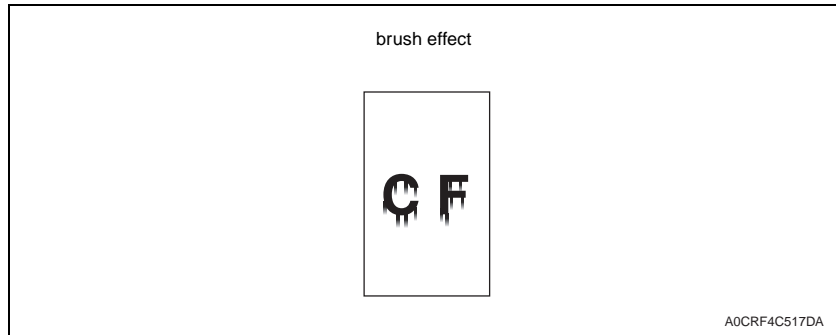


B. Troubleshooting procedure

| Step | Section | Check item | Result | Action |
|------|------------|---|--------|---|
| 1 | Media | Does the media being used conform to specifications? | NO | Replace the media. |
| 2 | Fuser unit | Are the fuser separator levers in the correct position? | NO | Correct. |
| 3 | | Have steps 1 to 2 eliminated the problem? | NO | Replace the fuser unit. → Replace the printer control board. |

19.1.15 Brush effect

A. Typical faulty images

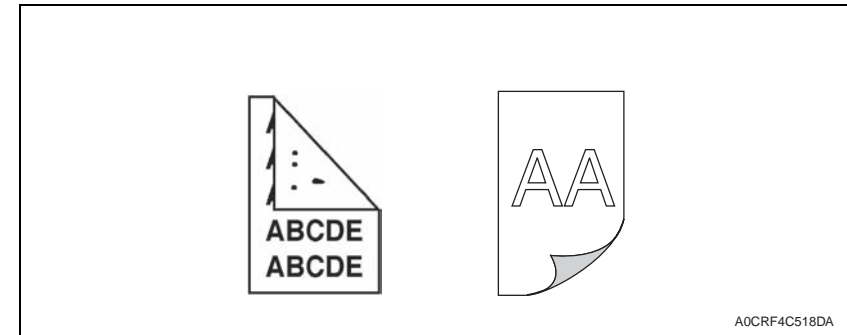


B. Troubleshooting procedure

| Step | Section | Check item | Result | Action |
|------|-------------------|--|--------|--|
| 1 | Media | Is the media damp? | YES | Replace the media with new media that has just been unwrapped. |
| 2 | | Does the media being used conform to specifications? | NO | Replace the media. |
| 3 | Imaging cartridge | Are there scratches or lines evident on the photo conductor surface? | YES | Replace the imaging cartridge. |
| 4 | | Is the transfer belt dirty with fingerprints or oil? | YES | Clean. |
| 5 | | Is the transfer belt dirty or scratched? | YES | Wipe the surface clean of dirt with a soft cloth. Replace the scratched transfer belt with a new imaging cartridge. |
| 6 | Fuser unit | Is the fusing entrance guide plate dirty? | YES | Clean. |
| | | | NO | Replace the fuser unit. |

19.1.16 Back marking

A. Typical faulty images

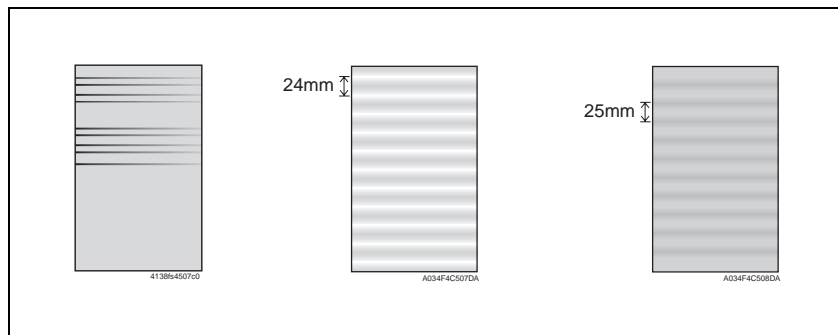


B. Troubleshooting procedure

| Step | Section | Check item | Result | Action |
|------|---------------------|---|--------|---|
| 1 | Media path | Is there a foreign object in the media path? | YES | Remove the foreign object. |
| 2 | Fuser unit | Is the fusing entrance guide plate dirty or scratched? | YES | Clean or replace. |
| 3 | | Is the fusing roller scratched or dirty? | YES | Replace the fuser unit. |
| 4 | imaging cartridge | Is the transfer belt dirty with fingerprints or foreign matter? | YES | Clean. |
| 5 | 2nd transfer roller | Is the 2nd transfer roller dirty or scratched? | YES | Replace the 2nd transfer roller. |
| 6 | | Have steps 1 to 5 eliminated the problem? | NO | Replace the imaging cartridge. → Replace the fuser unit. → Replace the high voltage unit. |

19.1.17 Pitch lines, pitch uneven density

A. Typical faulty images

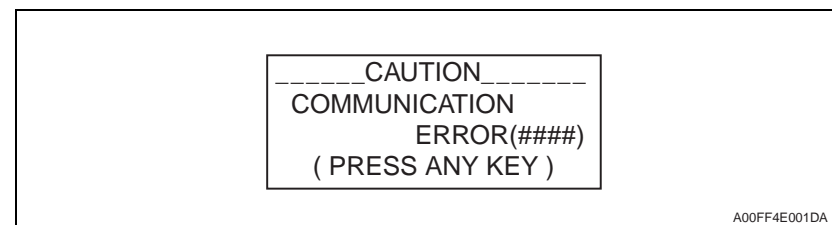


B. Troubleshooting procedure

| Step | Section | Check item | Result | Action |
|------|---------------------|--|--------|---|
| 1 | Image check | Do faint lines extending in parallel with the main scanning direction occur at a pitch of 24 mm? | YES | <ul style="list-style-type: none"> Execute [UTILITY] - [MACHINE SETTING] - [IMAGE REFRESH]. See P.105 NOTE If one image refresh sequence does not make the faint lines less noticeable, run it a second time. |
| | | Does uneven density at a pitch of 25 mm occur? | YES | <ul style="list-style-type: none"> Leave the main unit to stand idle under environment free of high humidity. |
| 2 | Toner cartridge | Is the toner cartridge for each color of toner installed in position? | NO | Reinstall. |
| 3 | PH unit | Is the PH unit secured in position with the fixing screw? | NO | Secure it in position. |
| 4 | Toner cartridge | Is the drive mechanism of the toner Cartridge dirty or damaged? | YES | Clean or replace the toner cartridge. |
| 5 | Imaging cartridge | Is the photo conductor dirty, scratched, or worn? | YES | Replace the imaging cartridge. |
| 6 | 2nd transfer roller | Are the 2nd transfer roller and drive mechanism dirty, deformed, or worn? | YES | Replace the 2nd transfer roller. |
| 7 | Fuser unit | Are the rollers and drive mechanism of the fuser unit dirty, scratched, deformed, or worn? | YES | Replace the fuser unit. |
| 8 | | Have steps 1 to 7 eliminated the problem? | NO | Replace the imaging cartridge. |

20. FAX error

20.1 Communication error

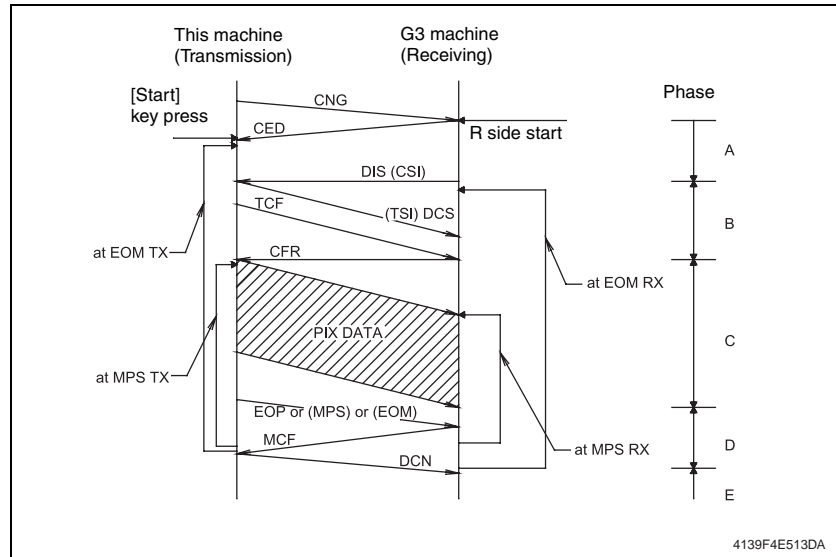


20.2 Outline

- Error caused by a problem of communication functioning. Five possible causes of errors are:
 - Communication is discontinued by a machine error.
 - Communication is discontinued by a machine trouble.
 - Communication is discontinued by an error occurring at the destination station.
 - Communication is discontinued by a protocol error.
 - ADF Error on trouble.
- When communication is discontinued due to item 3 or 4, transmission is retried. In other case, transmission is canceled without retry.

20.3 Error occurring during transmission

- The transmission error before “Phase-B” performs redial according to the redial interval of each country and the number of times.
The transmission error after “Phase-C” performs redial only one time. Transmission is canceled when an error occurs again. (can change in Soft SW)



20.3.1 Error occurring during reception

- Reception is canceled.

20.4 Error code

20.4.1 Reception

| Code | Possible Causes of Error. |
|------|--|
| 0001 | Manual receive mode, nothing G3 signal received within 35 sec. |
| 0003 | Received DIS after sending DIS signal. |
| 0004 | Received DCN after sending DTC signal. |
| 0006 | Detect busy tone within receiving phase B. |
| 0009 | Can not receive any signal within 35 sec. in manual polling mode. |
| 0010 | Received DCN signal after sending DTC signal in polling RX. |
| 0011 | Can not receive any correct response after sending three DTC signal. |
| 0012 | Remote side password not match in polling RX/our side no any file to be polling. |
| 0013 | Can not receive carrier within 6 sec. after sending CFR in data phase C. |
| 0014 | Can not receive T.30 signal after sending FTT signal. |
| 0015 | Line polarity change within receiving phase B to D. |
| 0016 | Receive DCN signal after sending PTT signal. |
| 0017 | Can not receive any response from remote side after sending type of xxx_EOM signal. |
| 0018 | Can not detect energy within 6 sec. after sending FTT command. |
| 0019 | Received DCN signal sending CFR signal. |
| 001A | No energy on line over 6 sec. within phase C before any corrected ECM frame. |
| 001D | Detect flag but nothing after CFR. |
| 0020 | Can not correct frame within 6 sec. or in no-ECM mode, one decoding line over 6 sec. |
| 0021 | File full. |
| 0022 | Owing to noise interference on the line, receiving side can not receive correct data within specified time (no ECM). |
| 0023 | Received PWD error in RSD or upgrade F/W. |
| 0024 | TX and RX machine both are different machine ID in upgrade F/W. |
| 0025 | TX and RX machine both are different company ID in upgrade F/W. |
| 0026 | Remote monitor level error remote side can not access in upgrade F/W. |
| 0027 | Detect machine prohibit Remote monitor connected. |
| 002A | Line problem. |
| 0030 | Can not receive any signal within 6 sec. at phase D. |
| 0031 | Received incorrect signal at phase D (not EOP, MPS, EOM, DCS PPS_Q, PPS_Q, etc.). |
| 0032 | Can not receive carrier within 6 sec. after sending MCF or RTP, RTN signal. |
| 0033 | Received DCN signal at phase D within pages (not last page). |
| 0039 | In non-ECM mode, when machine already received the data but next line data does not receive within 13.1 seconds. |
| 003F | Remote side TSI not define in machine one touch or speed dial directory. |
| 0040 | Can not receive carrier within 6 sec. after sending CTR. |
| 0041 | Can not receive carrier within 6 sec. after sending PPR. |
| 0042 | Can not receive correct signal after sending RNR signal. |
| 0043 | Receive incorrect signal at phase D in ECM mode. |
| 0044 | Can not receive carrier /FSK signal within 6 sec. after sending MCF in ECM mode. |
| 0045 | Can not receive any correct signal after sending RNR response with ERR signal. |

| Code | Possible Causes of Error. |
|------|---|
| 0046 | Receive incorrect signal when sending RNR which response with ERR signal. |
| 0047 | Can not receive correct signal after sending ERR signal. |
| 0048 | Can not receive correct signal after receive PPS_PRI_Q or PRI_Q, EOR_PRI_Q. |
| 0049 | Can not receive correct signal after sending PIP/PIN signal within 13 sec. |
| 004A | Line energy over threshold last 60 sec. after MCF, and can not detect FSK or carrier signal in ECM mode. |
| 004B | Can not detect correct FSK signal even through detected FSK tone within 6 sec. |
| 004C | Handshake fail during re-train or between page in V.34 RX. |
| 004E | Receive DCN signal after sending DIS in V.34. |
| 004F | Remote side disconnected after sending ANSam in V.8 phase. |
| 0050 | Can not receive any correct signal after sending CJ signal in V.8 phase. |
| 0051 | Can not receive phase 3 signal after phase 2 within 20 seconds in V.34. |
| 0052 | Can not receive phase 4 signal after phase 3 within 20 seconds in V.34. |
| 0053 | Modem disconnect after phase 4 in V.34. |
| 0054 | Remote side disconnected after phase 4 in V.8. |
| 0055 | Receive incorrect signal after sending DIS signal in V.34. |
| 0056 | Modem disconnect after sending CFR in V.34. |
| 0057 | Can not detect image signal within 6 seconds after sending CFR. |
| 0058 | Can not detect image signal within 6 seconds after modem enter to primary phase in V.34. |
| 005A | Modem can not detect any correct ECM frame with 3 minutes in phase C. |
| 005B | Can not detect phase 5 signal after primary channel within 6 seconds. |
| 005C | Detect busy tone within control channel after phase C. |
| 005D | Modem can not detect any correct ECM frame with 12 sec. in phase C. |
| 005E | Can not detect control channel signal after received RCP frame within 6 seconds. |
| 005F | Can not detect silence after sending JM signal for polling TX function. |
| 0060 | There are no any bulletin files to be polled in V.34. |
| 0061 | Machine can not detect V.21 or V.8 signal with 35 seconds. |
| 0062 | Modem disconnect in phase D after our side sending out flags sequence in control channel. |
| 0063 | Can not receive any flag sequence in control channel within 6 seconds in phase D. |
| 0064 | Can not detect any control channel signal in phase D within 60 seconds even through energy still on the line. |
| 0065 | Can not detect any control channel signal within 60 seconds after detect silence in phase D. |
| 0066 | Can not receive T.30 signal or carrier after sending CFR in V.34. |
| 0070 | User press stop key within receiving. |
| 0071 | Memory full within receiving. |
| 0072 | Received EOR_Q Signal. |

20.4.2 Transmission

| Code | Possible Causes of Error. |
|------|---|
| 0080 | Can not detect any G3 signal within 35 sec. specified by ITU-T in phase B. |
| 0081 | Received DTC signal in transmission phase. |
| 0082 | Transmitting unit receives a signal other than DIS or DTC and DCN in phase B. |
| 0083 | Detected FSK signal, but can not receive any signal within 35 seconds. |
| 0084 | Detect DCN signal in phase B. |
| 0085 | Transmitting unit sending DCS 3 times consecutively, but each time responds with DIS/DTC. |
| 0086 | Detected responds signal other than DTC, DIS, FTT, DCN or CFR after sending DCS. |
| 0087 | Training attempt has failed because speed unit can not adjust to low lower speed. |
| 0088 | Received DCN signal after sending out DCS signal. |
| 008B | Receiver's protocol of DIS is received, but it is not compatible with our machine. |
| 008D | Receiver's protocol of DIS is received, but remote side can not receive document temporary, may be cause by run out of paper or other reason. |
| 008E | Remote side CSI number not defined in machine one touch or speed dial directory. |
| 008F | Modem not ready to received V.34 data within 6 seconds after received CFR signal. |
| 0090 | Called side document not ready for our polling. |
| 0091 | Sending out DCS+TCF signal 3 times consecutively but no signal in response from receiver. |
| 0092 | Remote side disconnected within transmitting phase. |
| 0093 | Received DCN signal after sending out DCS signal for V.34. |
| 0094 | Time out during transmit ECM frame or RCP command. |
| 0095 | Wrong ID number when Polling RX. |
| 0099 | Remote side disconnect after primary channel. |
| 009A | Can not detect any signal after sending CI signal. |
| 009C | Received DCN after sending DTC in V.34 polling RX. |
| 009D | Remote side hang up before V.34 modem enter phase 2 state in V.34 polling RX. |
| 009F | Can not received any response from other side after sending PPS_EOM signal. |
| 00A0 | User stop or cancel transmission job. |
| 00A1 | Document JAM within transmission. |
| 00AE | Can not finished V.8 procedure or detect V.21 signal after CM signal within 30 seconds. |
| 00AF | Modem can not enter into control channel after TX side sending out RCP signal for V.34. |
| 00B0 | Can not received any command after our side retry there DCS signal in V.34 TX. |
| 00B1 | Can not finish V.8 procedure or detect V.21 signal after ANSam signal within 35 seconds. |
| 00B2 | Can not detect phase 2 signal after our side sending CJ signal within 30 seconds. |
| 00B3 | Can not detect correct V.21 or JM signal after sending CM signal. |
| 00B4 | Can not detect correct phase 2 signal within 25 second after CM/JM signal exchange. |
| 00B5 | Can not detect phase 3 signal after phase 2 within 25 seconds. |
| 00B6 | Can not detect phase 4 signal within 25 seconds after CM/JM exchange. |
| 00B7 | Can not detect phase 5 signal after phase 4 within 30 seconds. |
| 00B8 | Remote side disconnect after our side sending DCS signal in V.34. |
| 00B9 | Receive T.30 signal other than DIS, DCS, CFR after sending DCS signal in V.34. |
| 00BA | Can not received correct signal after our side sending DTC signal in V.34. |
| 00BB | Every time our side received DIS signal after sending DTC in V.34. |

| Code | Possible Causes of Error. |
|------|--|
| 00BC | Modem can not ready within 10 seconds after entering primary channel in V.34. |
| 00BD | Can not detect correct V.21 or JM signal after detected FSK frequency. |
| 00BE | Remote side no document to be polled after V8 handshaking. |
| 00BF | Capability no match. |
| 00C0 | Remote side disconnect before entering primary channel in V.34. |
| 00C1 | At phase-D, transmitting units out EOP 3 times consecutively, but receive no answer from receiving unit. |
| 00C2 | Remote side disconnect after sending out V.8 CM signal. |
| 00C4 | After sending MPS signal, the received is not one of MCF, RTN, PIP, PIN, RTP, DCN. |
| 00C5 | Received DCN signal after sending MPS signal. |
| 00C9 | At phase-D, sending MPS 3 times consecutively, but no answer from receiving unit. |
| 00CA | After sending EOP signal, the received is not one of MCF, RTN, PIP, PIN, PRI-EOP, DCN. |
| 00CB | After sending EOP signal, the received is DCN signal. |
| 00CC | After sending EOM signal, the received is not one of MCF, RTN, PIP, PIN, RTP, DCN. |
| 00CD | At phase-D, transmitting units out EOM 3 times consecutively, but receive no answer. |
| 00CE | At phase-D, transmitting units out EOM, but receive DCN. |
| 00CF | Received incorrect signal after sending DTC signal for V.34 polling. |
| 00D0 | Received ERR signal after sending EOR_NULL. |
| 00D1 | Received incorrect response after sending PPS_EOP signal in V.34. |
| 00D2 | Received DCN after sending PPS_EOP signal. |
| 00D3 | Received DCN after sending PPS_NULL signal. |
| 00D4 | Received DCN after sending PPS_EOM signal. |
| 00D8 | Can not detect correct phase 3 signal for polling within 25 seconds. |
| 00D9 | Can not detect correct phase 3 signal after detect silence after phase 2. |
| 00DA | Can not detect phase 4 signal within 30 seconds or remote side hang up over 6 seconds. |
| 00DB | Can not received any T.30 signal within 15 seconds within phase 4. |
| 00DC | Received T.30 signal in phase 4 other than DCS, DIS or DTC. |
| 00DE | Remote side no SUB capability in V.34. |
| 00E0 | At phase-D, transmitting units out PPS_NULL 3 times consecutively but receive not answer. |
| 00E1 | Received incorrect response after sending PPS_NULL. |
| 00E2 | Can not receive any response in RR response procedure after sending PPS_NULL. |
| 00E4 | At phase-D, transmitting units out PPS_MPS 3 times consecutively but receive no answer. |
| 00E5 | Received incorrect response after sending PPS_MPS. |
| 00E6 | Can not receive any response in RR response procedure after sending PPS_MPS. |
| 00E7 | Received DCN after sending PPS_MPS. |
| 00E8 | At phase-D, transmitting units out PPS_EOP 3 times consecutively but receive no answer. |
| 00E9 | Receive PIN signal after sent last page three times. |
| 00EA | Can not receive any response in RR response procedure after sending PPS_EOP. |
| 00EB | At phase-D, transmitting units out PPS_EOM 3 times consecutively but receive no answer. |
| 00EC | Received incorrect response after sending PPS_EOM. |
| 00ED | Can not receive any response in RR response procedure after sent out PPS_EOM. |
| 00EE | At phase-D, transmitting units out EOR_NULL 3 times consecutively but receive no answer. |

| Code | Possible Causes of Error. |
|------|---|
| 00EF | Received incorrect response after sending EOR_NULL. |
| 00F0 | Can not receive any response procedure after sending EOR_NULL. |
| 00F1 | At phase-D, transmitting units out EOR_MPS 3 times consecutively but receive no answer. |
| 00F2 | Received incorrect response after sending EOR_MPS. |
| 00F3 | Received ERR signal after sending EOR_MPS. |
| 00F4 | Can not receive any response in RR response procedure after sending EOR_MPS. |
| 00F5 | At phase-D, transmitting units out EOR_EOP 3 times consecutively but receive no answer. |
| 00F6 | Received incorrect response after sending EOR_EOP. |
| 00F7 | After Received ERR, our side can not received response after sending EOR_EOP command. |
| 00F8 | At phase-D, transmitting units out EOR_EOM 3 times consecutively but receive no answer. |
| 00F9 | Received incorrect response after sending EOR_EOM. |
| 00FA | Received ERR signal after sending EOR_EOM. |
| 00FB | Can not receive any response in RR response procedure after sending EOR_EOM. |
| 00FC | Can not receive any response after sending CTC. |
| 00FD | Can not speed down to lower speed in ECM mode. |
| 00FE | Memory full for transmission. |
| 00FF | Retail all fail. |

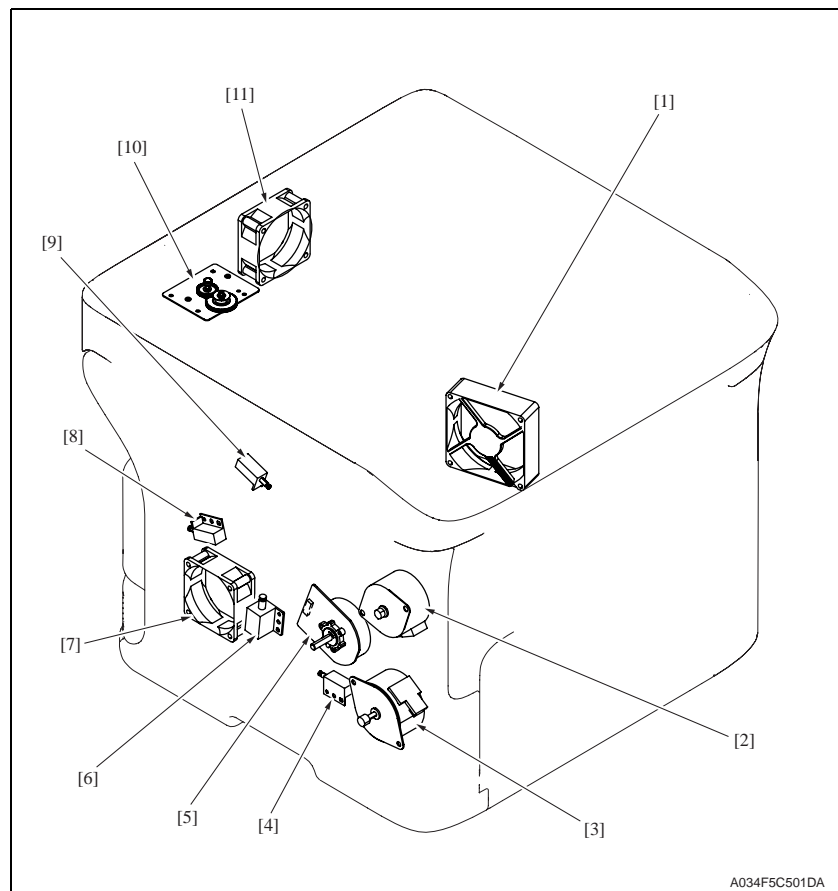
21. Scan error

| Code | Display | Content |
|------|---------------------------------|--|
| 0100 | CANNOT CONNECT SMTP Server | <ul style="list-style-type: none"> While the scanned document was being sent in Scan mode, a connection with the specified server could not be established. |
| 0101 | CANNOT CONNECT POP3 Server | |
| 0102 | CANNOT CONNECT DNS Server | |
| 0103 | CANNOT CONNECT FTP Proxy Server | |
| 0104 | CANNOT CONNECT SMB Server | |
| 0106 | FTP SERVER ERROR | <ul style="list-style-type: none"> The file cannot be saved on the indicated server. |
| 0107 | SMB SERVER ERROR | |
| 0108 | WRONG PASSWORD FTP Server | <ul style="list-style-type: none"> The password is incorrect, so the indicated server could not be accessed. |
| 0109 | WRONG PASSWORD SMB Server | |
| 010A | WRONG PASSWORD SMTP Server | |
| 010B | WRONG PASSWORD POP3 Server | |
| 010D | SERVER MEMORY FULL SMTP Server | <ul style="list-style-type: none"> The memory of the SMTP server has become full. |
| 010F | CANNOT GET IP SMTP Server | <ul style="list-style-type: none"> The IP address of the SMTP server could not be obtained from the DNS server. |
| 0110 | CANNOT GET IP POP3 Server | |
| 0111 | CANNOT GET IP FTP Server | |
| 0113 | COMMUNICATION ERROR SMTP Server | <ul style="list-style-type: none"> While data was being sent in Scan mode, the connection to the server was interrupted. |
| 0114 | COMMUNICATION ERROR FTP Server | |
| 0115 | COMMUNICATION ERROR SMB Server | |
| 0118 | DISCONNECT SMTP Server | <ul style="list-style-type: none"> The connection to the server was interrupted. |
| 0119 | DISCONNECT POP3 Server | |
| 011B | DISCONNECT FTP Proxy Server | |
| 011C | DISCONNECT SMB Server | |

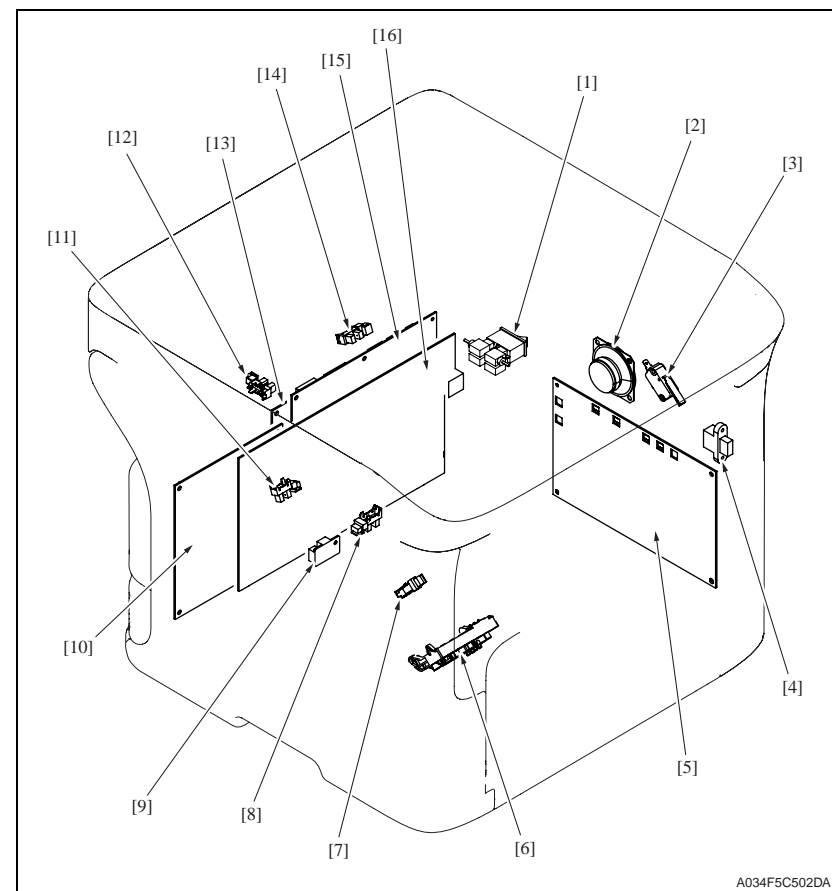
APPENDIX

22. Parts layout drawing

22.1 Main body

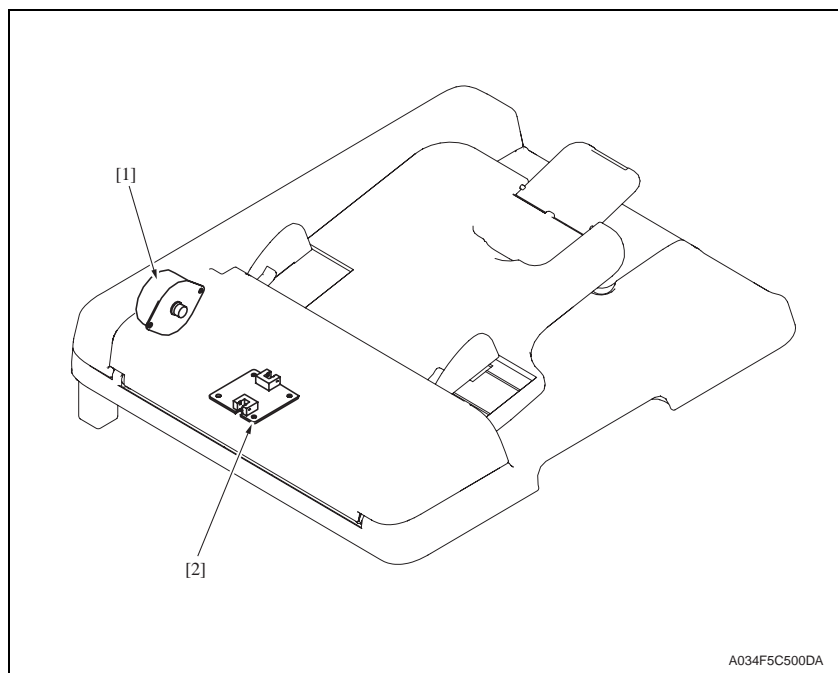


- | | |
|--|---|
| [1] DC power supply fan motor (FM1) | [7] Ozone ventilation fan motor (FM2) |
| [2] Rack motor (M2) | [8] 2nd image transfer pressure/retraction solenoid (SD4) |
| [3] Developing motor (M3) | [9] Cleaning blade pressure/retraction solenoid (SD5) |
| [4] Tray1 media feed solenoid (SD1) | [10] Scanner motor (M101) |
| [5] Transport motor (M1) | [11] Exit tray cooling fan motor (FM4) |
| [6] Registration roller solenoid (SD2) | |



- | | |
|-----------------------------------|--|
| [1] Main power switch (SW1) | [9] Temperature/ humidity sensor (TEM/HUMS) |
| [2] Speaker (SP) | [10] Print control board (PRCB) |
| [3] Interlock switch (MS2) | [11] 2nd image transfer retraction position sensor (PS3) |
| [4] USB port (USB) | [12] Media full sensor (PS16) |
| [5] High voltage unit (HV) | [13] FAX control board (FAXB) |
| [6] Contact switch (SW5) | [14] Exit sensor (PS4) |
| [7] Rack positioning sensor (PS5) | [15] MFP board (MFPB) |
| [8] Registration sensor (PS2) | [16] DC power supply (DCPU) |

22.2 Auto document feeder

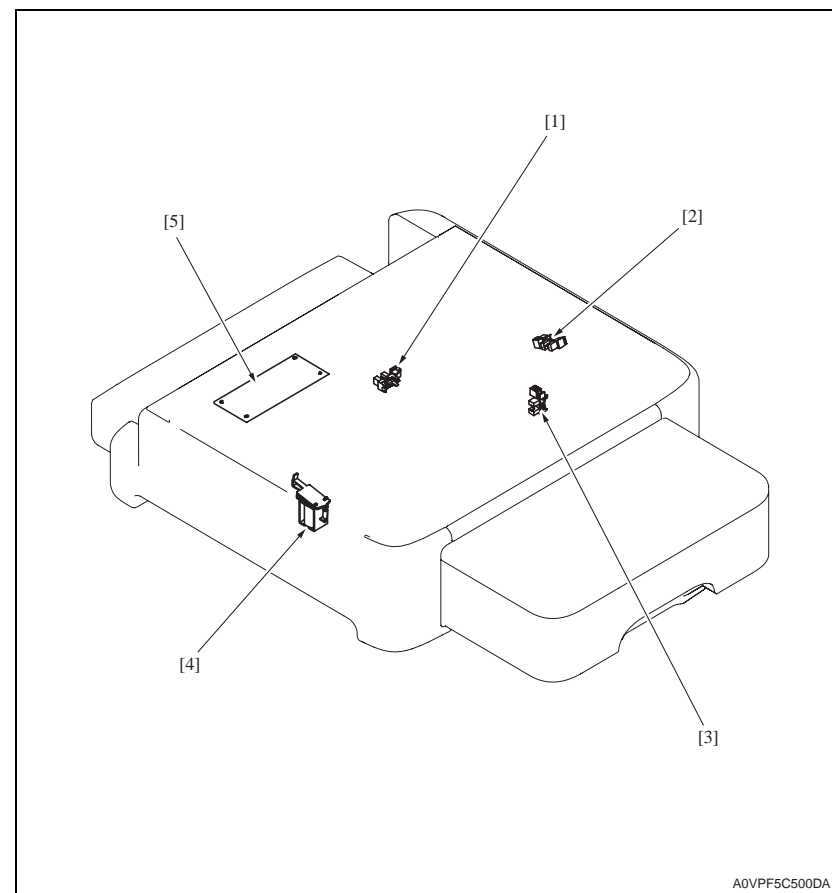


[1] DF transport motor (M100)

[2] Relay board/1 (REYB/1)

A034F5C500DA

22.3 Lower feeder unit (option)



[1] Transport sensor (PS12)

[2] Media empty sensor (PS10)

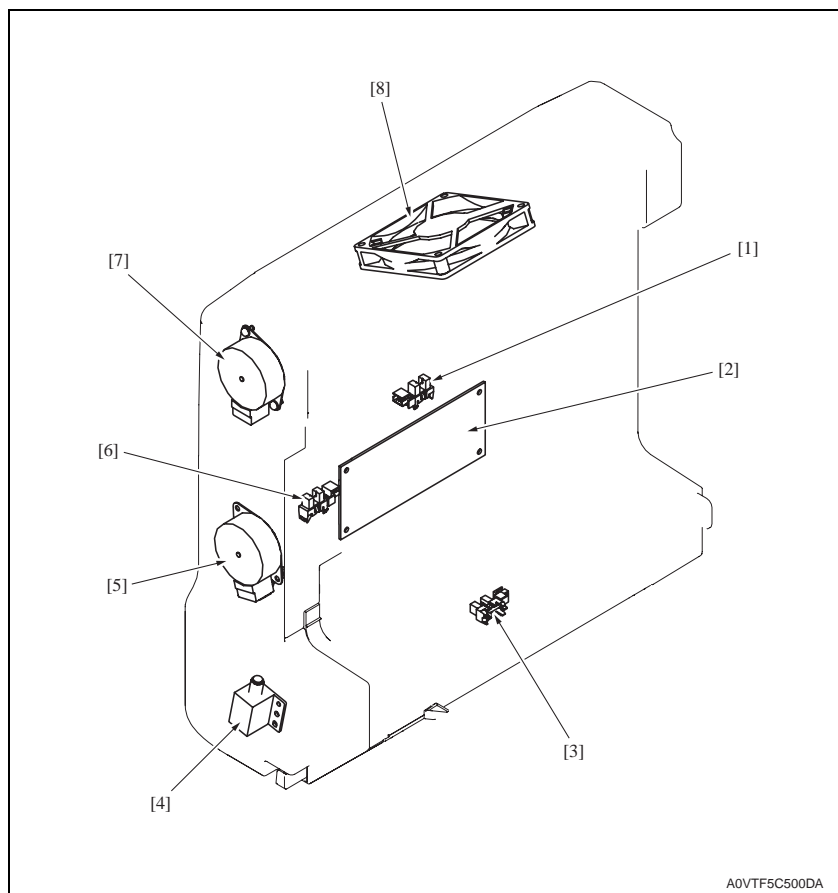
[3] Tray set sensor (PS11)

[4] Media feed solenoid (SD6)

[5] PC control board (PCCB)

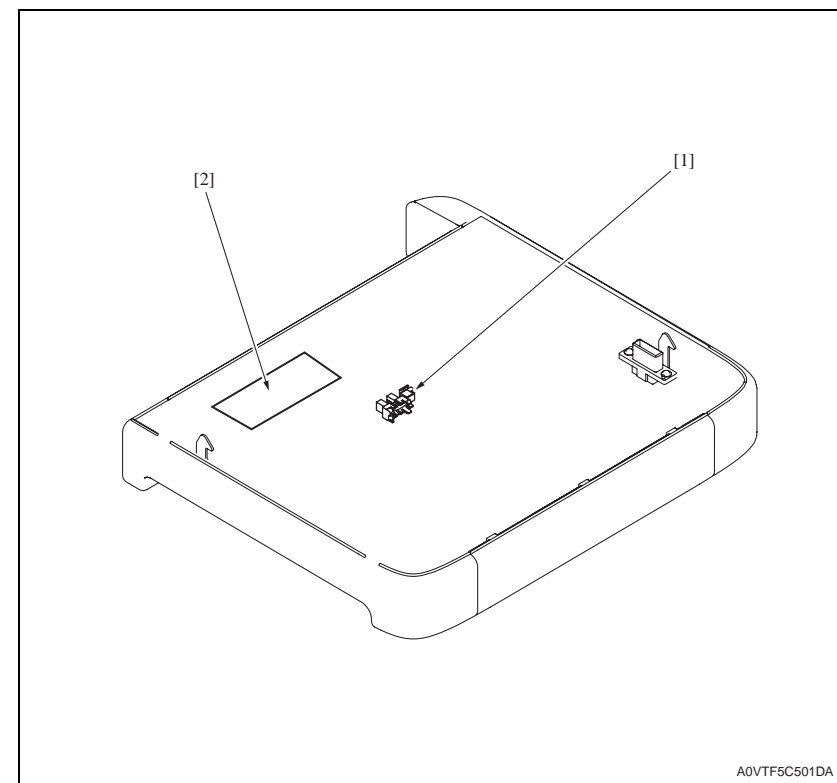
A0VPF5C500DA

22.4 Duplex option (option)



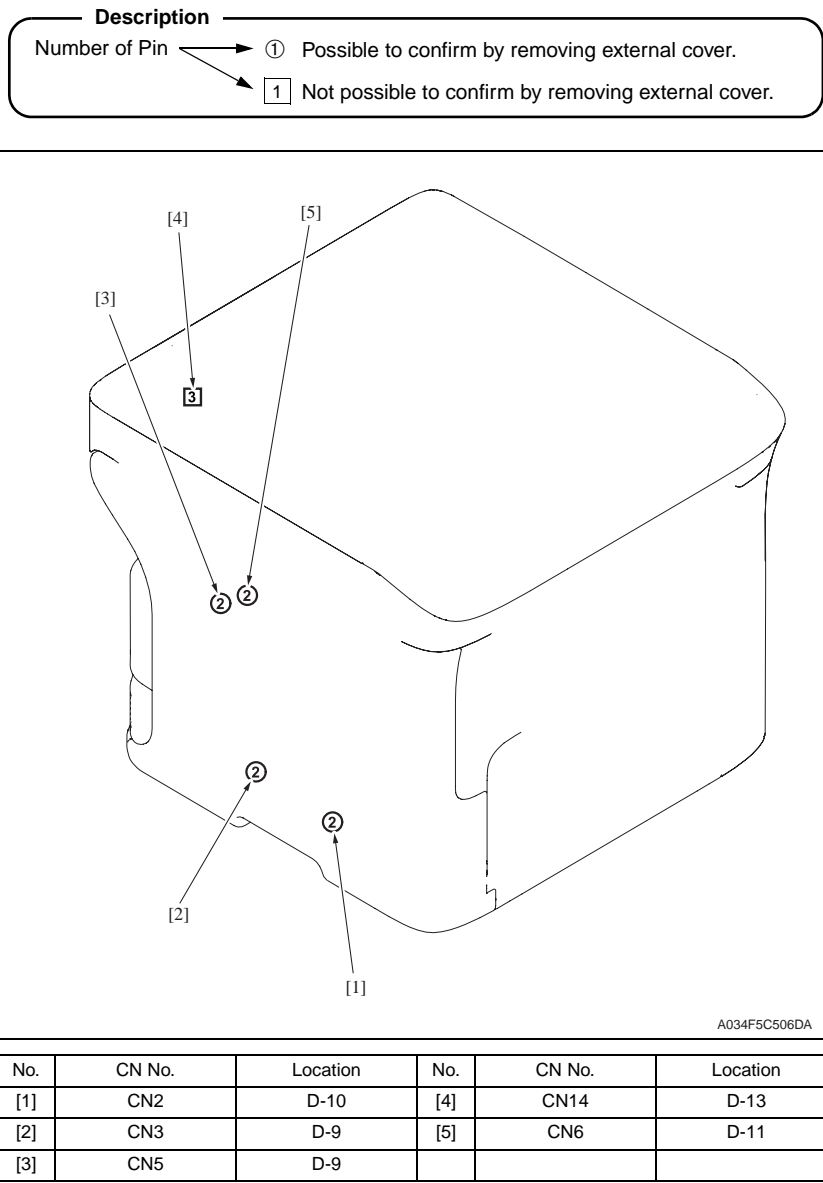
- | | |
|---------------------------------|-----------------------------|
| [1] Transport sensor/1 (PS15) | [5] Transport motor (M6) |
| [2] AD drive board (ADDB) | [6] Door sensor (PS14) |
| [3] Loop sensor (PS13) | [7] Switchback motor (M5) |
| [4] Registration solenoid (SD7) | [8] Cooling fan motor (FM3) |

22.5 Duplex option attachment (option)

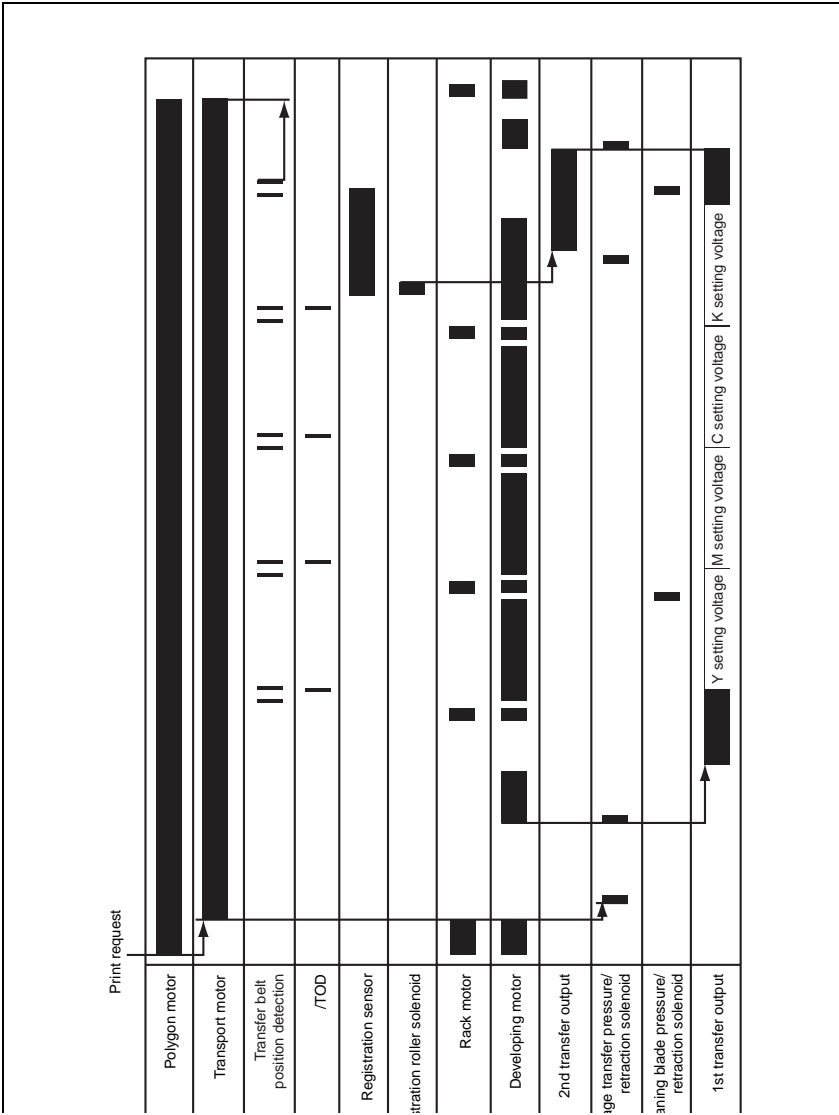


- | | |
|-------------------------------|----------------------------|
| [1] Transport sensor/2 (PS17) | [2] Relay board/2 (REYB/2) |
|-------------------------------|----------------------------|

23. Connector layout drawing



24. Timing chart



MC160n Overall wiring diagram

